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Surplus commodities

THE PROBLEM OF AGRICULTURAL SURPLUSES IN THE UNITED STATES

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"THE Agricultural Surplus Problem" has been discussed ever since 1920. The Farm Board in the United States, the Paterson Plan in New Zealand, and parallel innovations in governmentally operated or supported economic activities in many other lands have been proposed or adopted to cope with the problem. Yet there is no general agreement as to just what an "agricultural surplus" is. It is therefore necessary to make clear the sense in which I shall use the term.

By a "surplus" of an agricultural product I shall mean the presence of a supply large enough to depress prices to such a point that the bulk of the producers of that commodity are not able to maintain standards of living, satisfactory to themselves. This definition affords no clear-cut criterion for the existence of a surplus, and attempts to refine it would lead us into lengthy discussions as to the meaning and significance of "standards of living"; yet it represents the general idea we have in mind perhaps as well as any other statement which has been suggested.

This is in line with the definition of an "economic surplus" suggested by the Food Research Institute.

"The term surplus has come to be commonly if somewhat vaguely applied to that fraction of the crop which prevents the marketing of the crop at prices remunerative to the growers as a whole. . . . . The higher one fixes the price to be regarded as remunerative, the larger will be the surplus whose existence prevents the attainment of the remunerative price. . . . . The volume of the surplus in this sense depends (for wheat) on world conditions of supply and demand."[1] It is evident that in this last definition, the "remunerative price" leaves the same room for argument that "satisfactory standard of living" leaves in the definition I am suggesting.

It should be noted that a surplus, as just defined, has no direct relation to export or import of a commodity. There have recently

[1] "Wheat Under the Agricultural Marketing Act," Wheat Studies, Vol. V, No. 9, August, 1929, pp. 355-357.

been world-wide surplus situations in sugar and in wool, yet we import both of them; there have been serious surpluses in some years of crops such as potatoes, or watermelons, which do not enter into foreign trade in appreciable amounts; prices of both butter and sheep have been seriously depressed recently by the existence of surpluses, without significant export movement. Apple crops were so short last year that prices were high and no apple surplus could be said to exist; yet we exported considerable quantities of apples. An excess of supply above the quantity which can be disposed of at satisfactory prices, and not the place at which it is disposed of, seems the best criterion for the existence of a surplus.

The world-wide agricultural surplus problem goes back to the war and its consequences, and has been aggravated by the continually accelerating pace of technological improvements in agriculture.

The expansion of production here and elsewhere to meet the needs of war-torn and disorganized Europe has been generally recognized. What has been sometimes overlooked is that as Europe recovered her productive ability, no compensating reduction in production elsewhere could be either easily or readily made. Figures recently compiled by the League of Nations give a rough numerical measurement of the magnitude of the post-war changes. In 1923 and 1924, when European post-war recovery was already well under way, the food production of Europe was still 13 per cent below the pre-war level, whereas that of North America was 19 per cent above pre-war. By 1928, Europe had increased her output to 8 per cent above pre-war, and subsequently to even more; but North American production also increased, exceeding 25 per cent above pre-war in 1928. As a consequence, world production of foodstuffs, which in 1923 and 1924 was but 3 per cent above that of 1913, by 1928 had increased to 16½ per cent above 1913. World population, meanwhile, increased but 10 per cent from 1913 to 1928, leaving per capita production of food 6 per cent greater in 1928 than in 1913.[2] Meanwhile, the world-wide increase of urban population, and the continuing substitution of mechanical power for human muscle may have tended to reduce the per capita demands for food, at least for the cheaper

[2] All of these data exclude China, but include Russia.

energy-supplying grains and vegetables. The huge accumulations of wheat, cotton, butter, and feedstuffs, which this last crop year has witnessed, all bear witness to the world's ability to over-feed itself—and to its unwillingness to expand its waist-line to keep pace with food production.

It is true that the increased production of food has resulted in a reduction of under-nourishment; but a reduction in groups of such low purchasing power that they can increase consumption only at very low prices. The groups that are still under-nourished —as in India or China—are so inaccessible or at such low levels of subsistence as to be almost uninfluenced by world prices, no matter how low they should fall.

Improved methods of agricultural production, which have always been a factor in our agricultural evolution, have been adopted at an ever-increasing rate. Foremost is the general adoption of the tractor, which has reduced horses and mules on farms in this country by six million head—just 25 per cent—since 1913, and freed millions of acres for the production of products for sale instead of for feed for work animals. The improvements in methods of producing crops and livestock, and the development of still further perfected machinery, notably the combine harvester, have lowered costs and brought into crop production much new territory that previously was used for range and other less productive uses.

Unfortunately the sequence of lower costs, increased production, and reduced prices, does not automatically result in withdrawal from production of those producers who cannot reduce costs. Farmers in older producing territories, so situated that they cannot utilize the new methods, may find their margin of profits reduced or eliminated as a result of the lower prices; yet with all their capital tied up in their farms, with no training except for farming, and with no better alternative evident to them, they may struggle along for years, reducing their standards of living, impoverishing their soil, and living on their capital, while their buildings decay and their livestock dwindles away, before at last the pressure forces them out and agriculture fades into minor significance as it has already in so many areas in this northeastern section of the United States. So the net result of the lower costs is new expansion of production on the one hand, only partially and to a slight extent offset by contraction on the other. To date the rate of expansion has exceeded the rate of contraction.

Turning from this brief sketch of the forces which have developed the general surplus situation—to which industrial depression and accompanying under-consumption have recently been a significant addition—we may next consider the more vital question as to what can be done to improve the situation. This discussion falls into two broad parts; the prevention of the occurrence of surpluses, and the mitigation of their effects once they have occurred.

Prevention of the occurrence of surpluses presents itself as the soundest and most satisfactory solution which could be offered, and the only one which might be expected to work over a long series of years. Much of the basic information on which to base a program of surplus prevention is already at hand. The research work which has been done on the analysis of factors influencing the prices of farm products, and its practical application during the last eight years in the forecasting of future economic developments for each commodity in the Outlook Reports of the Department of Agriculture and of the agricultural colleges, have proved that economic developments in the major agricultural products can be judged from six months to a year and a half ahead with at least as great a degree of accuracy as weather can be forecasted a week ahead. But there are many difficulties in the way before this knowledge can be fully applied to secure a rational and conscious adjustment of agricultural production to the prospective demand, even within the wide limits of error which result from the influence of weather variations on output.

The limitations are of two sorts: (1) in getting the farmers to comprehend and follow the information; (2) in getting them to act on the facts, even when the situation is known. Let us take up this latter phase first. In attempting to adjust crop production, it is quite true, as Dr. W. J. Spillman has pointed out in his book, "Balancing the Farm Output," that the acreage of minor crops like potatoes, or of tobacco, or of cabbage, or of flaxseed, may be reduced to make the best adjustment to the prospective economic conditions, without materially influencing the prospects for major crops, such as corn, or wheat, or cotton, which might be substituted for them. But when we attempt to reduce wheat by substituting hay, we only shift the problem without improving the situation as a whole. The five major crops, corn, hay, wheat, cotton, and oats, occupied last year 320 of our 367 million acres of

crop land. The smallest of these major crops, oats, occupied 40 million acres; no crop, other than the five mentioned, occupies as much as 15 million acres. While it would be possible to prevent a surplus by reducing acreages of minor crops, and substituting major ones, continuous surplus production of the major crops could be prevented only by an absolute reduction in crop acreage as a whole, and not by readjustments between different crops.

A somewhat similar situation holds true among our livestock. Except for sheep, no major reduction in one class of livestock could be made without compensating increases in other classes. Shifting the use of feedstuffs from hogs to beef cattle, or to dairy cows, or to poultry, might relieve a surplus situation in one line by aggravating it in another, but it would not cure the situation as a whole. Of course, the length of the production process in livestock, the slowness with which producers can readjust production, and the consequent irregular cycles of over- and underproduction, lead sometimes to maladjustments of production between different classes of livestock which offer much room for improvement, and for profits to individual producers who are quick to grasp and meet the situation; but as a whole, the possible relief afforded by such readjustments is limited.

It may be noted in passing, however, that a pound of meat or of livestock products represents the feeding of the crops from a good deal larger area of land than is required to produce an equivalent quantity of food directly from grains or vegetables. If it were possible in some way to greatly increase our consumption of beef, for example, at the expense of some reduction in the consumption of crops directly for food, it would increase the crop area which would be needed to meet the demand, and so tend to relieve the chronic surplus situation. But unfortunately the general trend of our food habits is in the opposite direction, and the present industrial depression with the lower buying power of consumers has intensified this tendency. Hence, even if the package selling of meats and other changes in retailing methods should materially reduce retail meat prices, there is little likelihood that it could reverse the general course of consumption changes.

In spite of all the limitations which have been mentioned, adjustment of agricultural production so as best to meet the prospective demand, offers one of the most hopeful approaches to the surplus problem. A great deal of research and extension activity

has been devoted to the questions of how best to appraise the national and state outlook, how to interpret the general information in the light of specific local situations, how to combine the outlook with farm management fact and knowledge so as to assist farmers in making both short-time and long-time decisions for their own farms, and how to acquaint farmers with the continually changing economic facts and with the ways in which they could bring them to bear on their own farm problems. Much progress has been made, but much still remains to be done both in improving the accuracy of the information, and in getting it "across" to the farmers; perhaps one of the greatest services which the Farm Board will perform will lie in stimulating state and federal agencies to even more effective and adequate work in this direction.

But even though all farmers were fully acquainted with the outlook facts, the problem would still remain of getting them to act on those facts. And it is at precisely this point that one of the most difficult dilemmas of the entire surplus problem arises —a dilemma that has been dramatically called to the attention of the entire country by the wheat acreage campaign of Chairman Legge, and by his debates with Governor Reed.

It is true that if all the cotton, or all the potatoes, or all the beef cattle, were produced by one giant corporation, that restriction of production to some reasonable volume below the levels that have resulted in surplus production in the past, would increase the value of the product, and much increase the net income, even if some good land had to be left idle in the process. But farm production is not run by such giant monopolies; each producer sees that his own individual production has no perceptible influence on the total product, and he is inevitably driven, by the grim necessity of paying his taxes, meeting his bills, and buying gas for his tractor and his auto, to use each acre of his farm in the way that promises to return the most for its use, in the light of all the factors as he sees them.

The fundamental difficulty arises in trying to make the economic theories of monopoly work under the conditions of the most highly individualistic of all industries. There are six million or more individual farm operators in this country, each deciding on how to run his farm in the light of his own interpretation of what will pay best. Even if it were true that reducing the acreage of some particular crop, such as wheat, might advance prices by a more

than compensating amount, an individual farmer who was not already losing money on the crop would not be certain to gain by such a reduction unless he had assurance that all the other producers of the product were reducing by an equivalent amount. If he were a low-cost producer, and it appeared to him that a larger operation would increase his profits even if prices should be somewhat lower, he would be an exceptional man if he were guided by considerations of general welfare, instead of following the course which promised him, as an individual, the greatest net returns.

Further development, localization, and energetic extension of outlook and farm management information can do much to widen the view which each individual farmer takes of the prospective situation, and to help him make sounder decisions; but for the present it seems that the most we can hope is that each individual farmer will decide on his operations in the light of what promises to pay him best as an individual producer—as our German friends would say, what would pay him best *an sich.*

Beyond the prevention of surpluses by readjustments of production between farm enterprises, and the voluntary reduction of acreage, lies the possibility of reducing production by better land utilization as between agriculture and other uses, and by the development of more rational and scientific national and state land policies to take submarginal land out of production. This problem will occupy an entire day at these sessions, and therefore I merely mention it now, so that it will not be overlooked as one of the long-time approaches to the prevention of agricultural surpluses.

But if we do not yet see how surpluses may be wholly prevented, it may still be possible to take measures to alleviate their effects once they have occurred. While this may be treating the symptom rather than the cause, it is after all the symptoms which cause the patient such great distress; perhaps that is why the greater part of the proposals for farm relief have had to do with alleviation rather than prevention.

One of the most satisfactory ways of alleviation, and one that produces the smallest amount of unfavorable consequence, is to improve the efficiency with which the product is marketed. This may be in improving the efficiency of marketing, improving quality, and reducing costs, and so increasing the net return to

the producer; or it may be in seeking out wider markets, making contacts with and developing new customers over a wider territory, and so expanding the demand for the product. Services of this sort were responsible for much of the success of the California citrus co-operatives, and for the brilliant record of the Land-O'Lakes association; it is partly with the hope of securing such benefits to the producers of all commodities that the Farm Board has followed a vigorous policy of encouraging the development of cooperative associations wherever there were reasonable prospects for their success.

It must be admitted, however, that there are limits to what people can eat or wear, and to the extent to which costs of distribution can be reduced, so in spite of all that cooperatives have accomplished or may yet be able to accomplish in these directions, there still remains a wide field for the mitigation of the effects of a surplus.

If the surplus is of a temporary character—as, for example, a heavy peach crop, or a single large crop of cotton, in a period when supplies are not otherwise excessive, or a heavy excess of butter supplies above current consumption, such as occurred last fall and winter—some measure of relief may be afforded by a stabilization operation, withdrawing part of the supply from the market at one period, and selling it at a subsequent period when supplies are shorter. Such an operation tends to keep prices from going as low as they otherwise would in the period during which the supply is withdrawn from the market, and from going as high as they otherwise would at the time they are released for sale. Stabilization operations, as Dr. Davis has wittily pointed out in a paper read at the meeting of the Institute of Cooperatives at Columbus, Ohio, may be likened to the shock absorbers or stabilizers on an automobile, which prevent much of the jars and bounces from reaching the occupants or the machinery, and yet permit the machine to travel the way it is going—uphill and down, around curves or on the level. In the same way stabilization operations can neither horizontalize nor elevate the course of prices; they can merely smooth out their course, by ironing out some of the depressions and some of the peaks.

But where a surplus condition is not temporary but continuous, recurring year after year, stabilization operations alone can do but little to improve conditions. Economists have long pointed

out that once a supply of a commodity is in existence, it will continue to influence price, even if it has been withdrawn from the available supply. One major accomplishment of the Farm Board during its first year of existence has been to prove to the public that the economists knew what they were talking about—that withdrawing a portion of the supply of cotton or wheat from the market could not permanently neutralize its influence on prices, so long as it was in existence and available for future use.

With a continuous surplus—such as we have had with several major products since the war—the possibility of mitigating the effect depends on some arrangement which will secure a higher price in spite of the existence of the surplus. That means that in some way the economic situation must be so modified that the price is not established in the way it would be established under the usual competitive market conditions.

Under free competition, the price at which the last unit can be sold determines the price for the entire quantity which is sold. When supplies of any non-perishable commodity are in excess of the quantity which will be consumed during the crop year, prices drop until someone is willing to take the risk of buying the excess and carrying it over into the next season. Or for a perishable commodity, when supplies are in excess of the quantity which can be taken for consumption, prices drop to the prime costs required to complete the marketing process from the point where the surplus is available. The fruit on the trees, the potatoes in the ground, or the watermelons in the field, lose their entire value, and only the necessary costs of marketing are remunerated—and sometimes not even those.

The effects of continuous surpluses can be mitigated only by some method which prevents prices from being influenced by the surplus in the manner just described. Thus a higher return for the whole production could be obtained if in some way a "class price" could be established for part of the supply, so that the usual quantities would be taken by consumers at a price higher than would otherwise prevail under surplus conditions, while the surplus was being disposed of in some manner so as not to influence the prices for the bulk of the supply.

Class prices are well recognized in the case of services which are non-transferable, and which therefore can be sold at a higher price to one purchaser than to another. Surgeons' fees are the

classic illustration; varying railroad rates on different commodities are another. "Bargain sales" and "cut-rate stores" represent still another example, but these approach more closely to competition with the major outlet itself.

The "class price" idea has been successfully applied in the case of some agricultural products which have both a high-value and a low-value use, and where once a portion of the supply has been relegated to the low-value use, it is permanently removed from the supply for the high-value use. Fluid milk is the star example. Butter and cheese both offer lower priced outlets for disposing of the surplus product, and keeping the remaining supply of fluid milk low enough so as to maintain its price.

The same low-class disposition of surplus has been tried with other products, though with less marked success. In the case of many perishable or semi-perishable fruits and vegetables, the marketing of the low-quality or under-sized portion of the crop may reduce prices for all grades. Disposing of this surplus by canning or other processing eliminates it from the fresh market, and so results in a higher price for the remaining supply. Oranges, lemons, apples, grapefruit, and grapes are some of the products in which this method has been either tried or proposed. The grape-control plan now being put into operation in California, for example, contemplated withdrawing the surplus of grapes from the fresh-fruit market, and relegating them to grape concentrates and other manufactured products. It is expected that this will so maintain prices on the quantity sold fresh that even after paying the losses, if any, on the surplus-disposal operations, the growers will be much ahead. The fact that the 1,751,000 ton crop of 1929 brought California grape producers a total return 30 per cent larger than did the 2,366,000 ton crop of 1928, would seem to give ample basis for this expectation.[3]

[3] Production, Farm Price, and Total Farm Value of California Grapes, 1928 and 1929*

Year	*Production*	*Average farm price*	*Total farm value*
	(Tons)	(Dollars per ton)	(Dollars)
1928	2,366,000	16.06	35,538,000
1929	1,751,000	26.52	46,445,000

* PRELIMINARY DATA FROM CROPS AND MARKETS, DECEMBER, 1929.

To a certain extent, of course, operations such as those proposed for grapes represent spreading through an entire season a surplus which otherwise would depress prices only during the seasonal marketing period. To the extent that the manufactured products do not compete with fresh grapes, however, this does not complicate the situation for the grape producer, though it may for producers of other fruits for canning or processing.

It is possible that even with staple products, such as wheat, the surplus situation might be materially ameliorated by the relegation of part of the supply to an inferior use. Thus, if a considerable quantity of low-grade and cull wheats, which are always difficult to find markets for, were ground or mixed with other grains and sold at feed prices (which are ordinarily materially below wheat prices, except under such rare circumstances as this year's drought), the value of the total wheat supply might be increased by enough to more than pay the cost of the operation. The conversion of lard into soap, of short-staple cotton into paper or wall-board, and perhaps even of corn into alcohol to mix with gasoline as fuel for automobiles, are all illustrations of the possibility of disposing of a surplus by relegating it to an inferior use. Even though the product could be sold for only enough to pay its cost of manufacture, if the operation increased the total value of the supply, producers would still profit from the transaction. When the surplus to be disposed of is so large that the combined cost of harvesting, transportation, manufacture, and sale, is less than what the product is worth, it would seem more economical to work out some scheme of leaving part of the surplus unharvested on the farm, and yet allowing the grower to share in the benefits of the scheme. The California grape plan, as originally planned, had the disadvantage that each ton produced must be harvested and marketed, if the grower was to receive any return for it.[4] A system of differential prices to the producer, along the lines of those which will be discussed subsequently might be developed to meet this difficulty.

Many other expedients which have been proposed for ameliorating the effects of a surplus, such as by dumping the surplus abroad to raise domestic prices, also involve the question of getting a higher price for one portion of the supply than is obtained for the

[4] The final arrangements are not yet known, however.

balance. In these cases, however, operations such as dumping would relieve our own producers only at the expense of damage to foreign producers, and probably lead to retaliation of many sorts. In view of the tendency of other nations to follow our example, the question of what methods we adopt to ameliorate the effects of surpluses is a very serious one, and one that has world-wide significance. The United States cannot expect to solve its agricultural problem by any method which makes the problem worse for the rest of the world. This is an additional reason for preferring relegation to an inferior use, which improves the world market situation, to any form of disposal, such as export dumping, which would still further depress world markets.

Two considerations limit the extent to which devices such as those described might be employed to ameliorate the effects of the existence of a surplus. It costs money to dispose of a surplus, even by relegation to an inferior use; furthermore, some method must be provided for paying the expenses. The logical thing is for the cost to be borne by the producers who benefit. In the case of the grape plan, the cost is to be paid by an assessment on each ton of grapes, as arranged for by a voluntary agreement among the bulk of the producers. In the case of fluid milk, the cost is charged back pro-rata to the members of the cooperative association. Not unless there is some arrangement covering the great share of the producers, either by a voluntary agreement or by some compulsory form of payment such as an equalization fee, could such operations succeed. Otherwise, those outside the agreement would receive all of the benefits while paying none of the costs; their ranks might tend to increase while those who participated decreased, and the scheme would eventually fail.

The second difficulty lies in the influence of the higher price upon production. If no other corrective will prevent the existence of a surplus, low prices will do so through the harsh consequences of human suffering and failure. If the higher prices under a surplus-disposal plan resulted in increasing production, eventually the supply might become so large that even with the plan in operation prices would be disastrously low in any year of favorable weather conditions. Some fluid milk associations, notably for Philadelphia, Baltimore, and Connecticut, have met this difficulty with conspicuous success by using a class-price in paying producers as well as in selling the product. The producer gets one

price for that part of his production which is used as "basic milk," that is, for fluid use, while he receives a lower, or "surplus" price, for the excess portion which must be disposed of in other ways. In some cases, prices are so adjusted as to specially stimulate production during the season when supplies tend to be short, and to discourage production when the "surplus" above fluid requirements tends to be the greatest. By such modifications of the conventional competitive market structure, the fluid milk associations have succeeded in obtaining more remunerative prices for the producers, while at the same time production has been held within manageable bounds.

How far the system of selling other products can be modified so as to increase returns to producers while simultaneously restraining the production of a surplus remains to be seen. Dr. Spillman's "transferable-right" proposal, and Dr. Black's "domestic allotment" plan both have this element in them, of paying producers a lower price for their contribution to the surplus fraction of the crop than for the rest of their production. Both of these proposals are unsatisfactory insofar as they depend on the export market for disposing of the surplus. But if some such device for paying producers could be combined with some of the more promising ways of disposing of the surplus which have been sketched above, it might be possible even with major products to raise the price to producers, and yet restrain further increases in production.

In conclusion, I would like to emphasize that although I have devoted a good deal of time to discussing means of ameliorating the influences of a surplus, the most fundamental cure lies in the prevention of their production. Continued effort must be brought to bear on determining the outlook facts, on getting farmers to know and understand them, and in getting them to base their operations on such facts. It would certainly not be economic, in the broadest sense of the term, to encourage the continuous production of cotton to make paper, or of corn to make fuel, while wood-pulp and gasoline, respectively, could be produced at much less expenditure of effort and resources. Surplus disposal devices may be justified as expedients to meet a temporary situation or an occasional period of heavy yields, but as a continuous policy, proper adjustment of production is much more satisfactory.

So long as too much labor and resources are devoted to agricul-

tural production, the total product of all industry will be less than if the surplus productive ability were transferred to other fields. We may be able to develop devices by which this transfer can be made at less cost in human suffering and misery, and with fewer broken lives and blasted hopes, than it has involved in the past. But only if the process of readjustment does continue, and only if the various lines of production can be continually readjusted and balanced to make the most adequate use of the progressing technical improvements, can the conveniences and luxuries of modern life be extended to an ever wider group and to an ever greater extent to all classes of the population.