

“REVOLUTION IN AGRICULTURE”

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AGRICULTURE is generally admitted to present one of the most depressed phases of our economic situation. The conventional view with respect to this condition is that it follows as a result of the depression in what is called Industry. This is rather like putting the cart before the horse, for the ills which beset agriculture are really more fundamental than such a view takes for granted.

Agriculture is not merely sharing a depression; it is outgrowing its old form and character and assuming a new, a painful, process. It is undergoing a transformation very much like that which overwhelmed the craftsmen of Europe and America a century ago after the introduction of the steam engine, the Industrial Revolution, and with all the concomitant social, moral and intellectual disturbance which accompanied that epoch marking development.

The revolution in agriculture has not followed directly the introduction of labour saving machinery, the much heralded replacement of the man with the scythe by the binder or mowing machine, etc. Agriculture managed to readjust itself to this change, which did not greatly affect life on the farm. It was the advent of power farming, the harnessing of the internal combustion engine, the Diesel engine and electrical energy to the farm machine, which definitely marked a new era in this oldest of human occupations.

It is curious that the Industrial Revolution had so little effect upon productive methods in agriculture. The steam engine, it is true, was very difficult to adapt to work on the land. A central power plant was useless on a farm, and movable units of power were necessary. Even when these became available, they were adopted and are still being adopted much more slowly than were parallel opportunities in manufacturing. Capital is not so easy to interest in agricultural production, because in general both production and price depend upon factors beyond control of the operator, and particularly upon the weather. Yet human ingenuity continues to forestall and overcome production problems, so that capital is accumulating in agriculture, and commercial farms are superseding “agriculture as a way of life”. The old fashioned type of farm is on the way

out, and with it the old fashioned type of hired man, the big old farm kitchen, "buttermilk", "dobbin", "the tables groaning under an abundance of mouth-watering, home-grown, home-cooked food" for the threshing crew, and all the other familiar paraphernalia of the fiction writer dealing with farm life. The hired man now is likely to be a pretty good mechanic, his hands to be soiled more with grease than with soil. The threshing crew are more likely to eat in the cook house than in the farm kitchen. Buttermilk may be had from a creamery or a drug store, but not from a present-day farm.

Against the mechanization, organization, specialization and adequate capital resources of what might be termed large commercial farms, small farmers and substance farmers are struggling to compete. Their operations are not sufficiently large to justify any appreciable investment in machinery, and they carry on their operations much as their grandfathers did. Numerically, most farmers really belong to this category. Europe calls them peasant farmers, and although good Americans can climb on a platform and thank God that peasant farming is unknown on this side of the Atlantic, it is difficult to see what difference the mere name makes. The truth is that the small producer, whatever he is called, is generally in distress.

Under present conditions, the term "small farmer" has less reference to the size of one's land holding than to the extent of one's operations. A dairy and general farmer with 1000 acres, feeding five or ten cows, would hardly have enough turn-over to pay his taxes, but a good scientific or capable market gardener with 30 acres could be turning off many thousands of dollars worth of produce and doing well for himself. A greenhouse operator, a bee keeper, a poultry farmer can do a fairly large business on a very few acres. The crop from an acre of celery might be worth \$1000, but from an acre of hay, probably only \$10. And in a large part of the United States and Canada, the North East for instance, hay is the most important crop in terms of aggregate value.

So the small farmer, who is finding it so difficult to survive under pressure of inexorable economic law, may be a fairly large land holder whose operations are so meagre as hardly to suffice for the subsistence of himself and his family. He carries on much as the pioneers did, but with fewer resources and less return. He is best described by the term "subsistence farmer", and usually occupies marginal land. A couple of decades ago, when his needs were simpler, at least to the extent

of his not having to afford second-hand cars and radios, and when agricultural production had not yet been cheapened in relation to other goods to the extent that they have been since, such a farmer was able to subsist on his holding. His family lived more or less on what they produced, and could sell enough to buy the little extra that was needed; but unfortunately this is no longer the situation.

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Governments have long been forced to recognize the fact that all is not well on the land, and in most countries the “sturdy”, “self-reliant”, “independent” son of the soil appears to be somewhat coddled, in the view of the cynic. Tariffs usually protect manufacturers, but though these sometimes do little for the farmer, he is commiserated by getting the attention of his elected representatives, together with their staffs of trained civil service agriculturalists. He is offered the help that modern scientific research can give him in production. And as well he gets all the marketing schemes, regulations, organization, subsidies and the like, that a busy mill can grind out for his relief.

To the mind of the ordinary tax-payer the questions of cost, and results, might present themselves. The cost, of course, demands a goodly slice of government revenue. But whatever it is, it might be justified by a small degree of achievement, because of the overwhelming importance of agriculture in national economy. It is a fact that the production, preparation and distribution of agricultural products constitute the major activity of commerce. Agriculture furnishes transportation systems and industry not only with food but with work. And some industries, such as the manufacture of farm machinery, refrigeration, the chemical plants which make fertilizer, stock yards and packing plants, steel and iron, wood and fibre package plants and many others, are so closely linked to agriculture as to be in reality part of it. It is almost axiomatic that when anything upsets the economic status of the farmer, the upset is immediately contributed to the general situation. The much touted and admittedly important market that labour affords the product of industry is relatively unimportant, compared to that which a really prosperous agricultural population could supply.

It is impossible even to attempt to assess the net result of government’s many-sided aid to agriculture. But it may

be asserted in a general way that one result has been a cheapening of agricultural products to the consumer, and so the tax payer gets his money back. Any benefit to the farmer beyond direct relief of some sort can be determined only in relation to that farmer's individual opportunities. Perhaps it might be said that governmental help, in so far as it has contributed to more efficient and advanced methods of production, has helped the good farmer and in particular the commercial farmer, but made the going even more difficult for the poor farmer and the subsistence farmer. The research work and experimental data in the fields of plant breeding and the development of superior strains of plants and seeds, in the more effective use of fertilizers, in soil building and green manures, rust and blight control, insecticides and pest control have all been of incalculable value to the farmer with the opportunities, intellectually and financially, to avail himself of them.

In short, government aid has, if anything, accelerated the working of the old jungle law, survival of the fittest. The "fittest" in this case were those who could produce cheapest. And this keeps tending to large-scale production, much on the principle of mass production in the factory. An operator who raises 20,000 bags of potatoes or wheat at a net profit of 10 cents per bag is in a very different position from the small farmer who raises 100 bags at the same profit.

To some extent government effort on behalf of the producer tends to cancel out. This naturally follows from the fact that the so-called "farm problem" is anything but clear cut, and is not determined by any comprehensive plan mapped out with perspective or harmonized for the industry as a whole. For, in general, government aid to agriculture falls into one of two categories. In the one, government experts work to increase and cheapen production; in the other, their colleagues strive manfully to reduce production and maintain prices.

Briefly, one corps of workers sparing neither time nor expense are accomplishing miracles in making ten blades of grass grow where one grew before. The corners of the earth are scoured for plants resistant to disease, newer and better methods of bringing pests under control are being devised, soil requirements and deficiencies are being studied and overcome, animals are being bred to conform to more profitable and heavier producing types, the desert is made to blossom under irrigation, and heavier yielding strains of seed are originated and distributed. Thus the new hybrid variety of corn multiplies the per

acre yield in a manner that is little short of sensational, and this introduction undoubtedly marks a success of Secretary of Agriculture Wallace's régime.

But, working hard to nullify and offset the fruits of the triumphs of scientific agriculture, another corps of experts are on the job attempting to prevent markets from being flooded, by crop curtailment, by enforcing grading regulations which aim at keeping the poorest products at home on the farm, by inducing marginal farmers to abandon marginal land for reforestation, and by control boards and price commissions which seek to replace what they call chaotic marketing conditions with what they call orderly market regulations. The achievement of Secretary Wallace in this field, parallel to that recorded above, is the ploughing under a portion of the corn crop. The whole situation may be as clear as mud to citizens generally, but many farmers are on the verge of nervous, as well as financial, prostration.

Without the work of the first group, boll weevil might have eliminated America as a cotton producer, the corn borer would have made corn growing an exceedingly hazardous occupation, the oriental moth would have destroyed the fruit industry of Florida, codlin moth would have kept apples from being a glut on any market, old types of wheat would have been ruined by rust or killed by frosts over wide areas in which earlier and hardier varieties thrive. In short, these workers have rendered indispensable service both to producers and to consumers.

Yet it is obvious that the more successful such workers are in attaining their objectives, the more difficult becomes the task of the second group in attempting to maintain a given price level by controlling the supply of a given commodity. And it also tends to follow that a high degree of success achieved by the price maintainers makes it just so much more difficult for them to continue being successful. For profitable prices stimulate production more effectively than anything else, just as unprofitable prices in the long run supply the natural economic corrective for overproduction.

Perhaps it would not be unfair to liken the work of government in agriculture to that of a gigantic research laboratory in which two broad groups of dissimilar experiments are being tried, one group trying to find an antidote for the work of the other, while the whole procedure is so vast and complicated that nobody can quite comprehend it. And overshadowing it is the new movement in agriculture, as irresistible as the

Mississippi in flood, where the theorists who would direct the flow in the channels they have mapped out are usually swept on with the tide. So go the plans to keep up the price of cotton, of corn, of oranges and hogs.

Sometimes the adherents of this new school of thought, believing in the regulation by compulsion of the business of distribution, are not at all logical. Particularly is this true when a man trained in animal husbandry or veterinary science or parasitology ends up as some sort of Commissioner in charge of marketing regulations or investigations. At an Agricultural Conference held in Montreal recently, Mr. H. S. Arkell, formerly Special Markets Commissioner for the Dominion Department of Agriculture (before becoming an economic expert he was a professor of Animal Husbandry) linked his ideas of distribution to the principle of democracy itself, and seems to contend that unless dictatorial methods are adopted sooner (in Canada's export trade) then we shall have dictatorship later. Said Mr. Arkell, according to a Canadian Press dispatch:

Under present conditions Canada has to meet state directed marketing monopolies offering militant competition. Competition of this kind can be met within the limits of democratic principles, but unprecedented conditions in Canada itself would have to be tackled by policies in advance of anything we have yet undertaken.

The principles of a regulative discipline must be introduced if our export trade is to succeed. Voluntary agreements will not work, as has been proved, but the man who breaks them commits a crime against democracy. Democracy must take authority to prevent that crime or deal with the criminal. Otherwise democracy fails.

In effect this authority seems to insist that we should use the methods of dictatorship to keep democracy from failing. But just what point there would be in keeping alive democracy on such a basis, he does not make clear. If the machinery of dictatorship is better and more efficient in its working, as he seems to imply, why quibble about what the system is called? If "castor oil" is to be used, it will not taste the better because administered in the name of democracy.

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The ferment in the agricultural industry is not limited merely to production, but is just as evident in the transportation and distribution of food stuffs. Here, however, the cost trend is reversed. The cost of production on commercial farms is

decreasing; but the cost of distribution is increasing. This is true in spite of the fact that the motor truck brings many a city and town market within the reach of producers, and enables them to reach individual stores and chain store systems.

Once upon a time a favourite topic in farm magazines was an analysis of just what happened the consumer's dollar which was expended for foodstuffs. It was taken for granted that the producer was entitled to the lion's share of that dollar, and that if he did not get it, something was radically wrong. But now the thoughtful producer does not feel quite the same about it. He realizes that the modern retail food shop is the product of a new age. The retailer has to cope with high rental, high taxes, expensive equipment, gleaming glass and tile and refrigerated counters, scales that are mechanical marvels, service, credit, delivery and so on. Much of the food on the grocery shelves cost little in itself, more in the dressing up. Attractive in all sorts of fancy and coloured packages with lithographed labels, “cellophane” wrappers, ribbands and tinsel, coupons and advertising, they make the farmer feel that after all he had a very minor part in producing the glittering array; many others had a hand in it too. It is a very far cry from the days when oatmeal was scooped out of a barrel, or bag and beans likewise. Now the housewife buys oatmeal in an illustrated carton with a plate inside for good measure, and the beans go over the counter in attractive cans or individual crocks.

“Service”, too, is an expensive factor in the better class store. There is nothing intangible about it. It costs just as much to deliver Mrs. B's order of a dozen apples, a turnip or a head of lettuce, two or three blocks in a gleaming, gold-lettered light delivery as it costs the producer to grow them. And not infrequently Mrs. B returns the head of lettuce because an outside leaf seemed to be going bad, and the grocer takes it back with a smile. “Service” has added to the housewife's convenience, but it has subtracted much from the producer's returns.

Curiously enough, other distributive channels tend to become simplified as the actual retailing gets more elaborate. The fruit or vegetable grower, whose product actually arrives at the retailer's in a condition still more or less natural, can make direct contact with the retailer, as has been noted. Nevertheless this development, although it eliminates some middle-men, tends to weaken prices to the producer by the disorganized marketing conditions which prevail because so many farmer salesmen are competing with one another for the trade, usually on a price cutting basis.

So we get the paradox, that it is more often than not an advantage for a producing section to be at a distance from its market. Necessity forces organization and standardization, uniform quality and the employment of middlemen, brokers and commission men who tend to steady prices and make for more orderly marketing. The retailer can adopt a "take it or leave it" attitude to the trucker farmer salesman, anxious to be rid of his load, but the established wholesaler with his stock safe in storage is less likely to cut prices.

The whole problem is further complicated by changing tastes in food, the drift towards green leafy vegetables, raw fruits and vegetables. Northern farmers have had to acquire mortgages because of the amazing development of truck and early vegetables in the South. Canadian potato growers, for instance, who used to be able to count on fairly good potato prices in the late spring as a reward for holding, now find their local markets weakened with potatoes from Jamaica and Bermuda and Florida.

Similarly the canning industry continues its amazing growth. The technical skill of the canners continues to improve until the purveyors of fresh foods can really claim little superiority for their products. Refrigeration plants and refrigeration transport thus continue to turn the agricultural map topsy turvey. Now a new giant in the food industry looms up, quick frozen foods. Already government workers in plant breeding have been drafted to the job of developing new strains of fruits and vegetables which will lend themselves more perfectly to this new medium. The grocery store of the future will have to install new apparatus for handling foods in this form.

And so the broth is continually being stirred up. Everywhere, orderly minds in the heads of earnest producers and conscientious civil servants, working in the broad field of agriculture, are busy planning to improve and cheapen production; while simultaneously the orderly minds of their colleagues are busy planning marketing control, crop curtailment and destruction, more stringent grading regulations designed to keep poor quality products out of consumption, in order to overcome the results of the abundance stimulated by the first group.

But exactitude in economic planning must take cognizance of a vast number of unstable factors, not least of which are the weather and human psychology. It is the quirks in human nature that make economics an inexact science. Mass emotionalism is unpredictable and often, or so well meaning planners think, defeatist, unless control or planning is extended through

the whole national structure to direct mass or mob psychology, by means of propaganda and regulations governing social and political as well as economic aspects of everyday life, as in Germany and Russia.

It is the unexpected human reactions which have frustrated the plans of planners in most of the schemes so far launched on this side of the Atlantic. Moreover, these reactions sometimes produce results quite the reverse of those striven for.

A case in point was the attempt of the Canadian Wheat Pool, some years ago, to maintain an artificial price level something after the fashion of the present U. S. experiment with cotton. The attempt was at first in some degree successful, but eventually failed, disastrously for the Canadian West, like the subsequent rubber and coffee experiments in the British East Indies and Brazil. The important market for Canadian wheat is, of course, in the British Isles. There the attempt to maintain a price level for wheat brought the trade to a pitch of indignation matched by the U. S. indignation over the rubber control episode. In England this indignation boiled over, and infected consumers to such an extent that English millers were permitted for the first time in many years to decrease by 100 per cent the content of Canadian hard wheat in their regular brands of flour, and conversely to increase the content of the soft wheats in just that proportion. More than this, English research workers in plant breeding concentrated on breeding a variety of wheat which could be grown in England, having the baking characteristics of Canadian hard, and found it.

So the net result of the whole laudable experiment was the permanent loss of a portion of a sorely needed market.

The well meaning planners have indeed a difficult row to hoe. Even if they had hindsight, it would still be a very difficult and complicated business. For students of the Industrial Revolution, with all the advantages of knowing what did happen, would find it difficult to formulate a plan which our progenitors might have adopted a century ago, to smooth the road for the distressed workers of that trying period.

Leadership and planning are inevitable, and we lean to them as plants to the sun. But probably just now we have an overdose of over ambitious planning and leadership, whether of house painters in Europe or of horse doctors in America.

Perhaps the underlying economic forces, which have produced the stresses and strains of recent years, bear about the same relation to isolated attempts at group planning as the weather man does to the plans of a picnic party.