FULLY MECHANIZED FARMING ON THE AGRONOMIC UNIT BASIS

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This paper presents the views of an engineer regarding economic problems of farming practice which center around mechanization. Farming, especially the growing of field crops, is in many respects an engineering industry. Operations performed on the soil by the farmer are closely similar to those performed in the engineering construction of a dam or highway.

Looking at farming through the eyes of an engineer, the author has drawn freely from engineering experience in the development and operation of public utilities and other industries which have gone through the economic evolution from small individual plants to centralized and mechanized units. Farming is now only partially mechanized on the basis of the individual farm. It is not uncommon to see three tractors working in three contiguous fields on different farms, performing the same operation on a total area which could be handled by a single larger tractor if farm property lines were crossed and fields laid out for more efficient operation.

It scarcely needs argument that there is a gross inequity between the return which the farmer receives for money invested and labor performed as compared with the skilled worker in industry. How many farmers are there who, after deducting all expenses plus 5% interest on the money they have invested, would find enough left in their annual income to pay themselves $1.25 per hour for each and every hour they work during the year? These are the wages of skilled labor of various kinds. In addition, how many farmers would find enough left to pay the members of their families even one-half of this amount per hour for every hour of work done? The farmer is certainly a "skilled workman"; skilled not in one but in several lines, and if he succeeds he is a good business man as well.

Recognizing this condition of affairs the question may be asked, How has it come about? The author believes the answer is that, as a result of more complete mechanization, centralization, unification, and business organization, the modern industrial plant can afford to pay and does pay a much higher return price of farm products to a point where the farmer would receive the equivalent of industrial wages, and the industrial worker and every other person would pay for his food and clothing a price proportionate to what the farmer pays for many products. If done arbitrarily this would be robbing Peter to pay Paul. It is always better to arrive at a remedy through removing the cause than the effect.

If the economy and efficiency of farm operation could be brought up to the level attained in organized and mechanized industries, it would be far toward providing a remedy at the source of trouble. How, and how far, this may be accomplished as a practical matter is considered in this paper.

At the outset it appears certain that much of farming units than present individual farms could be brought up to the level attained in the best economic results through mechanization. A group of contiguous farms, as a unit, is described as an "agronomic unit."

The author believes that agronomic farming, with full mechanization will come in the near future as a result of economic pressure if not otherwise. They may come in the form of large independently operated farms, operated individually, like Washington's farm at Mt. Vernon, or operated by corporations. They may come through grouping or amalgamation of individually owned farms. The latter, in the author's opinion, by far the more desirable, is to such farmer-owned and farmer-operated agronomic units that this paper is chiefly devoted.

Heretofore attention has been devoted to developing details of mechanized farming, and the time has arrived when more attention be given to its ultimate economic prospects and problems. It is hoped that the subject has been in sufficient detail in this paper to elicit continued discussion looking toward the betterment of farming in the future and the removal of present inequities.

UNIFICATION AND MECHANIZATION