CAN INTENSIVE FARMING BE MADE PRACTICAL AND PROFITABLE FOR THE INEXPERIENCED MAN FROM THE CITY? BY EDGAR J. HOLLISTER

The first question asked of one who advocates a return to farming as the most natural and reasonable method of earning a living and providing a home and a competence for the future, is: What about the practical side of such a scheme? Would it be possible for a workman used to city life and to the factories and possessing little knowledge of farming to cope with the difficulties which frequently prove too much for the man who has lived all his life on the farm and whose father and grandfather before him have followed the plough? Also, the question is likely to come up as to the actual results to be obtained by modern methods of intensive agriculture. Reports of experiments made by experts is one thing, but the actual putting into practice of these methods by the man who is more or less inexperienced in dealing with the soil is another, and generally there is a difference between the two so wide that the two results hardly seem to apply to the same thing.

With regard to the first question, I should say that the practical difficulties in taking up farming could soon be surmounted by an intelligent, energetic man, however inexperienced, who was willing to learn all he could from reliable sources and to gain his own experience as rapidly as possible by keeping a strict account of everything done on the farm and profiting by every failure as well as by success. We purpose in this and succeeding numbers of THE CRAFTSMAN to give all the practical information, advice and suggestion that lies within the scope of our own experience and upon which we are therefore entitled to speak with authority. Owing to the activity of the Department of Agriculture, the sources of more technical instruction are also abundant, and when a man’s mind is once turned in this direction it will find plenty of good stuff to feed upon. As to the actual results of intensive agriculture, I can only say that after years of a varied personal experience, covering a variety of climatic and soil conditions in this country and Canada, I know that it is possible by the use of intensive agriculture to double all of our agricultural products and that each farmer can by taking the necessary care not only increase his own profits very materially, but bear his share in bringing the general productiveness of the country to the point so imperatively needed in view of the demands of our increasing population. In
some ways the man who goes to the farm fresh from other occupations has an advantage over the man who has stayed on the farm, for the reason that his inexperience is balanced by a certain mental alertness that comes from being vitally interested in a new thing.

IN MY mind there is no question that we have reached a period in our national growth where it is absolutely necessary to take more interest in the matter of increasing the crop producing power of the soil. We are only beginning to feel the pinch of this necessity, but the conditions that now exist are bound to increase, and we have our choice between beginning now to apply the remedy or of delaying action until widespread distress compels us to force the adoption of some such reform. The chief difficulty is that the people at large do not see the necessity as it is seen by statesmen and thinkers who grasp the whole situation and realize its significance; and until we can formulate a practical plan by which those who are suffering under present conditions will be enabled to take up the work of cultivating the soil with the idea of getting a large yield from a small area, progress must necessarily be slow. The tendency of human nature is to get all it can and let the future take care of itself, but we seem now to have reached a period in our national growth where the future must be taken into consideration and a return to agriculture brought about as almost the only means by which our national strength may be increased and our prosperity put on a permanent basis.

For proof of the effect of such a movement upon our national life, we have only to turn to the history of the more densely populated countries of Europe, where such conditions as we are coming to existed long ago. One of the most significant evidences of the responsibility which rests upon the farmer is found in the payment of the enormous war indemnity which was required of France by Germany before the German army of occupation would be withdrawn from Paris. The treaty of peace stipulated that this indemnity was to be paid in specie, and it was then that the small farmers from all parts of France rose to the situation and brought to the government all the gold and silver coin they had saved, taking in exchange the French paper money. The debt was paid and the country spared further humiliation from the presence of the German troops. Since then, France has not only redeemed her obligation, but is today financing other countries. Her people are so contented that very few find any inducement to emigrate, and the thrift and prosperity of the small farmer and shopkeeper in France has grown to be proverbial.

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Another instance of a country where small farming by intensive methods is made the basis of national strength is found in Japan, where forty-five millions of people,—of whom thirty millions are agriculturists living and working on an area less than the state of New York, have been the means of building up and equipping a nation which in a few years has come to rank among the foremost of the powers. Intensive agriculture in Japan is the outgrowth of conditions. The country is rough, and farming is carried on under unusual difficulties. In many instances the land has to be made into a series of shelves, with raised ridges on the hillside to prevent the soil from washing down into the valleys. And so great is the value of this land that the Japanese are devoting considerable attention to finding plants that will grow on these ridges and yield profitable food supplies. It is hardly too much to say that in this intensive farming of small tracts of land lies the secret of Japan's marvelous advancement, for it is nothing more nor less than scientific thrift, and the turning to the utmost account of every resource of the country, a state of affairs diametrically opposite to that which obtains in America today.

IN THIS country of vast size and apparently illimitable resources, it is hardly to be wondered at that the intensive farming of small tracts of land has not, up to the present time, been considered a general necessity. Under certain conditions and in small communities in various parts of the country it has been and is carried on with a marked degree of success. For instance, at Norfolk, Virginia, where the climate is mild in winter and where the soils are of a sandy nature, making easy all the processes of agriculture, market farming has reached a wonderful degree of perfection. All the northern markets are made accessible by the fact that cheap transportation by boat is easily obtained, and when these transportation facilities were extended to Florida, many farmers moved further south, where fruit and vegetables might be produced and sent to the market in the early winter. Again, the climatic conditions near Kalamazoo, Michigan, coupled with a limited area of the kind of soil best adapted to the production of celery, induced a group of Hollanders in the early seventies to take up the growing of celery, an industry which has since made this city famous. The thrifty Hollanders drained the tamarack swamps, peat bogs and river bottom lands in Kalamazoo, and, merely by the practical application of good principles of farming, they developed an industry that brought to the city banks annual deposits in the neighborhood of six hundred thousand dollars. The
total area under cultivation is about seventeen hundred acres, which has been cut up into small farms containing from two to five acres each. As the production of the celery crop is largely hand labor, each family shared in the cultivation of its own farm, and communities were rapidly built up where fifteen hundred people are now gaining an ample livelihood. The industry was developed in other parts of the State, on limited areas adapted to this particular crop. Modern methods of fertilization and cultivation have been introduced and the standard of the crop has been raised so that the net profit in most cases ranges from two to three hundred dollars per acre.

For some years the Department of Agriculture has been advocating the practical application of intensive methods on farms where the dairy industry might be used as an additional means of livelihood and for the purpose of restoring the fertility of the soil. Tons of valuable literature have been distributed among the farmers and those interested in the problem, setting forth the advantages that might be gained from proper drainage of the soil, the selection of seed and a system of crop rotation. Much good has been accomplished by these means, but one difficulty has been met which seems apparently insurmountable. The Department work has been simplified more and more that the farmer might better understand how to put into practice the fundamental principles that govern success in agriculture; but by reason of his desire to expand and cultivate a larger area than his energy and capital would permit frustrates to a great degree his own efforts. Instead of putting all the care upon a small tract of land necessary to make it as productive as possible, he almost invariably turns to the purchasing or renting of more land to farm in the same old way, hoping that with good weather he might realize larger returns.

Nevertheless, these obstacles are largely due to faulty standards and methods that are either extravagant or over-conservative. Enough has been done even in this country to show the results that may be obtained by intensive methods of farming, and it is my belief that all that is required to make such a movement general in its scope is to bring within the reach of the workingman a plan that he can undertake with a reasonable prospect of success. The matter of securing land would be comparatively easy in the New England States, in New York or in New Jersey, where there are a number of farms well located and with an abundant water supply that can be purchased at a price ranging from ten to fifty dollars per acre, according to the condition of the buildings. Throughout the Northern, Central and Western
States, where the land is not so rough, the prices would run from fifty to one hundred dollars per acre. The advantage of the Eastern lands is that they lie in a much more thickly settled part of the country, and where it is possible to restore the soil to a fair state of productiveness, it is better for the small farmer to be located somewhere near a city or a large town, as this provides his market and does away with exorbitant charges for transportation.

Within easy reach of New York and the coast cities there are large areas of salt meadows and swamps that are not only favorably located but may easily be reclaimed for cultivation. There tracts may be purchased at prices ranging from five to one hundred dollars per acre, and when they are diked and reduced to cultivation by modern methods and treatment, they could easily produce a net income ranging from fifty to one hundred dollars per acre in common crops and five hundred to one thousand dollars per acre when used for the production of such special crops as celery, lettuce, asparagus and other vegetables. This is not theory, but a matter of which I speak from actual experience. In the New England States there are large tracts of land well located and with a good water supply which range in price from ten to twenty dollars an acre. A portion of this land is now under cultivation and the remainder is covered with small timber, so that agriculture and forestry could be taken up with a very encouraging prospect for success.

The most encouraging feature in starting such an enterprise is that a beginning can be made by a few people, say from five to ten, and the acreage required need not exceed fifty to one hundred to give each person sufficient land to cultivate. As a rule, in getting property of this kind, not much ready money is required, as most of it is mortgaged and the mortgage could be taken over with the place, leaving the first payment required very small. If the location chance to be a very desirable one, the group of people settling there would be wise to take options on surrounding lands, and thus avoid competition which might come from speculators in such real estate, who would inevitably be attracted by the first appearance of a settlement. In selecting the location, the first requisite is a good and convenient supply of wholesome water. What is termed loamy soil is preferable, with a small portion of low muck ground, where the outlet for local and main drainage of the whole farm is ample to meet all necessities. If there happen to be wood lots and orchards, so much the better, and stone piles are an advantage.
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In the beginning a small portion of land, say three acres, could be set aside for the building site. One acre of this might be planted with such fruit as would permit the keeping of poultry in the orchard for the greater part of the year. When the fruit ripened the poultry could be confined or temporarily removed without much detriment. The variety of fruit trees planted could embrace peaches, plums, pears, dwarf apples and cherries,—about seventy-five to one hundred trees, which should come into bearing the second year after planting. This acre could also furnish room for keeping one hundred laying hens in small colony houses scattered over the area. The net income from these hens can safely be estimated at one hundred dollars per annum, and by the fourth year the fruit should also net a return of one hundred dollars, which income would materially increase as the trees grew older. On the remaining two acres surrounding the house would be a lawn with shrubbery, shade trees and flowers. The rest of the land would be devoted to the farm proper, one-fourth of which should always be in clover, which is most useful as a reconstructor of the chemical and physical conditions of the soil. The area planted to clover could be changed every year and a half from one part of the lot to the other, arranging it so that every part of the land would be planted to clover at least every fourth year. While the chief returns from the clover crop would be in the increased productivity of the land, there would still be a revenue of at least ten dollars on the clover hay harvested, and also a pasture would be furnished for the poultry during the time of their removal from the orchard while the fruit was being harvested.

On the remaining three-quarters of the land vegetables and small fruits might be continuously cultivated, producing sufficient for home consumption and preserving, and leaving a goodly crop to be marketed. In addition to the income to be derived from the sale of fresh fruits and vegetables, and of canned and preserved fruits, jams, jellies and the like, there is a great demand for pedigree seed stock. The seedsmen and gardeners pay fancy prices for tomato seeds and selected corn and beans, all of which could be produced not only for the revenue that would come from their sale, but for the opportunity thus offered to gain a practical knowledge of the breeding of plants up to a high standard with a view to increasing the yield, improving the quality and hastening the time of ripening of all such crops,—features much to be desired in intensive agriculture.

In the methods by which these results may be obtained, the question of drainage occupies a prominent place, as the benefits de-
rived from a good system of drainage are far-reaching. Tile drainage of land is the most practical method, but the expense of it has militated against its general use. If, however, the tillers of the soil could once realize the advantages to be derived from such methods of draining and the profits likely to accrue from such an investment, the introduction of tile drainage could not fail to be more rapid. The most practical way would be to lay a line of tile along one side of an acre lot and see what it would do. The expense of this would be trifling in comparison with that of putting in a system of tile drainage throughout the whole area, and the increased revenue from the part so drained would not only encourage the cultivator to drain the rest, but would materially help him in paying for it. This principle applies to all methods of intensive agriculture. Try them in a simple way and on a small scale at the start, and the chances are that the result will be sufficient to encourage further experiments, while the load of expense would not be so heavy as to be discouraging.

By the systematic manipulation of a three-acre plot, the gross revenue from the poultry, fruit, vegetables and seeds should reach at least one thousand dollars a year. This result, however, would depend upon the putting into practice of such methods as have now been found to be practical and that govern success. This leaves out of the calculation winter farming by means of hot beds, cold frames and small greenhouses, such as now enter largely into the problem of cultivating small areas by intensive methods, and also leaving out the incubators and brooders necessary to the highest development of the poultry plant. All of these will be taken up later, when we purpose to develop in detail each branch of the subject in its turn.