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The Irrigation of Small Fruits and Vegetables

T. G. Bunting, B.S.A., Experimental Farm, Ottawa

WHEN considering the advisability of installing a system for irrigation purposes, the four points to keep in mind are, climatic conditions, the character of crop to be grown and markets. Having these points in mind and giving them the consideration that they deserve, it is possible to decide in favor of or against irrigation in any particular case.

It is the writer's experience, based on experience in the Pacific Coast States, particularly in California, as well as in New England, where irrigation is practiced by some of the largest vegetable and small fruit growers, that irrigation is feasible in Ontario and particularly in the Niagara District, where it should result in greatly increasing the returns on the high priced lands. Irrigation has already been tried in Ontario for vegetables and small fruits in a number of cases and has proved satisfactory.

Irrigation simply means applying a quantity of water to the land for the use of a growing crop. Almost every annual report of the different farmers' organizations of Ontario, as well as of the Ontario Department of Agriculture, makes frequent mention of periods of more or less prolonged drought each year which have seriously affected the crops. The summer of 1911 is fresh in the minds of many people as the prolonged drought cut the crop of small fruits in Ontario very short, affecting not only the consumer, who had to

pay the high prices, but the grower who was not adequately compensated for his small crop, even by the high prices. The grower, also, was not able to fulfil one of the first principles of good business, the giving of satisfaction to his customers, inasmuch as he was forced to charge them abnormal prices.

In years of big production and low prices the man who irrigates will again win out, as his extra fine crop, the result of irrigation, will realize the top prices. As business men know, the man with extra fine produce can sell more easily in the years of big production than the man with poor or only medium produce. In a year like 1911 irrigation will often mean, in a crop like strawberries, the difference between success and failure, so that even with the most expensive system of irrigation the cost of installation would be paid for by one season's crop.

DIFFERENT SYSTEMS

There are two systems of irrigation that may be practised. The gravity method requires a large supply of water, which is applied to the soil through open ditches, the water flowing by gravity. As it flows it soaks into the ground. The second method is by overhead sprinkling. This requires the water to be delivered under a pressure of fifteen to thirty pounds to the square inch. The quantity depends on the area to be irrigated at one time. The former method is cheaper in initial cost but extravagant in water, and higher in up-keep. The

latter method is economical of water, cheaper in up-keep, but more expensive in initial cost for installation. In the long run it is the best method to adopt for small fruits or vegetables.

To apply water by gravity the water must be brought to the highest part of the land to be irrigated. From this point it is delivered through furrows, about three to four feet apart and three to four inches deep, over the land, the furrows following the contour of the land so that there is an even, gentle fall. When a crop is growing the water is delivered between the rows. The land must be laid out and planted so that the water may be delivered by this method. With a little study and practise it can be done quite easily on most lands, provided the water can be brought fairly cheaply to the highest part of the land. In practice it is desirable to use lands for this purpose that can most easily be irrigated by this method.

In the overhead sprinkling system the water is carried through pipes to the land to be irrigated. Here the water is applied in much the same method as by a gentle rain. The water is distributed from the main pipes through laterals placed from fifty to seventy feet apart and up to five or six hundred feet long. Along this lateral, placed at intervals of four feet, is a special nozzle through which the water is forced and carried a distance of thirty to forty feet from the pipe.



A Peach Orchard, Two Years from Planting, on the Farm of D. M. Hamlink, Huron County, Ont.