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EDITORIAL.

In calculating the profit or loss of the season's operations, do not forget the harvest of improvements in the way of stock betterment, increase of soil fertility, and new buildings erected. These alone often constitute a very satisfactory profit.

The clover in most meadows is more or less heaved, and, notwithstanding the fact that the heavy spring rains have served to pack the soil around the roots to some extent, most of the meadows would still be benefited by rolling. The roller packs the soil around the roots, squeezes down all small stones, and makes the surface much smoother for cutting later on.

In the spring, when the soil is wet from the melting of the snow and frequent heavy rains, the conservation of soil moisture does not seem very important, yet this is just the season when cultural methods tending to hold this water to tide the crops over seasons of drouth later on should be practiced to the limit. All of the commoner farm crops require much more moisture than falls during the growing season.

Perhaps the most important crop on the farm from the standpoint of live stock is the hoed crop. Last year's shortage of winter feed should cause an increased acreage of this crop this season. Nothing is more in the interest of general farming and soil fertility than a large acreage of corn and roots well manured and well cultivated. It clears the soil of noxious weeds, and puts it in an excellent condition for a cereal crop with which to seed down to that invaluable hay and fodder crop—clover.

The element of chance enters into most under-takings, but with underdrainage there is no such thing as "chance." Properly installed, a system of underdrainage is just as sure to benefit the soil as night is sure to follow day. A walk over two fields following the heavy rains of spring will convince the most skeptical. The drained land dries off quickly and gives the crop an opportunity to grow, while the water remains in the undrained soil for several days, making it sad and sticky.

Many a farmer, working long and faithfully to build up his stock and homestead, feels discouraged at times because of the seemingly meagre result. The truth is that he spends a large amount of his own time, as well as that of his hired help and teams in effecting improvements which he fails to count at their full value, because not realizing the full amount of time or even all the cash expenditure which went into them. So he toils away, with scant encouragement, until astonished some day by a dispersion sale to find how much his accumulated improvements have added to the value of stock and property. It would be more encouraging to know as he goes along, just what outlay of time and money his various improvements really represent; and, too, such knowledge might, some day, deter him from sacrificing them at less than they are worth.

The Control of Soil Moisture.

It seems almost ridiculous to talk about conserving soil moisture at this season, when the land is supersaturated from recent heavy rains and the melting of a winter's heavy snowfall, yet this is the season when much can be accomplished to aid in preventing this water from running off, soaking away, or being evaporated and lost to the crop. If our soils were not what is often termed "too wet," crops would not be as heavy as they usually are. The land must absorb and retain considerable of this water, else the crop must suffer before it matures, as only about half the amount of moisture falls during the growing season that our common cereals require.

The soil is the source of practically all the water taken in by plants. Only when plants are in a wilted condition have they any power of taking in moisture through their leaves and stems. Very few of the common farm crops contain in their green and growing state less than 75 per cent. water. The very fact that the plants themselves are so largely composed of this material, makes it important that plenty of it be always available during their period of growing. Water is also a source of plant food, for it is by this that the soluble plant food of the soil is carried up into the plant, there to be used in building up tissue as the moisture is transpired from the leaves. The more water there is in the soil, the more will be evaporated from the leaves, and the stronger the upward flow of plant-food-laden moisture, the more rapid growth of the plant. Of course, it is well known that plants do not grow well in a saturated soil, and experiments have shown that the optimum water content for plant growth is somewhere between forty and sixty per cent., probably about fifty per cent.; but few soils contain anything approaching this amount during the midsummer months. It is necessary that steps be taken to assist the soil in holding the water.

Cultivation is the first method usually employed to place the soil in condition to hold water, yet very few of those engaged in soil cultivation think of this as one of the prime objects of their tillage operations. We know that, the finer the soil particles, the greater the soil's capacity for retaining water. Each soil particle is surrounded by a film of water. The greater the number of particles, the greater the surface holding this film, and the greater the amount of water in the soil. A fine seed-bed is of great importance. Every extra stroke of the cultivator or the harrow adds to the water-holding capacity of the soil.

The mere fact that more surface is exposed in fine soil is not the only effect which serves to aid in moisture retention. A layer of finely-pulverized soil on top serves as a mulch, checking evaporation, the most constant means of loss. Evaporation from a bare, saturated soil is greater than from a water-surface. Evaporation is much more rapid from a loose, friable soil than from a compact one. This can be proven by the fact that soil ridged up in the fall dries much more quickly in the spring than soil left over winter in the compact state. Here, again, is an argument against deep spring tillage, and in favor of the shallower cultivation, forming a mulch. This mulch cannot be retained with grain crops, but frequent stirring of the soil keeps it in action on soils being used for hoed crop or summer fallow.

Well-rotted farmyard manure or green manur-

ing is an effective means of increasing the water-holding capacity, as it increases the percentage of humus in the soil, and humus is the greatest of soil constituents, when moisture retention is considered. This is a strong argument for barnyard manure and the plowing down of green crops.

Underdrainage of wet soils is another method of increasing the water-holding capacity of the soil. It lowers the water-table, allows the plant roots to descend deeper to this water, aerates, pulverizes and improves the soil, and saves a great amount of water that would otherwise be lost by evaporation for the use of the growing crop when it needs it most. Water is an essential to plant growth, and must be retained in the soil for the use of the crop throughout the entire growing season.

Vegetable and Small Fruit Farming.

The city and town demand for fresh vegetables and small fruits, and the great quantities of these products required by canning factories, combine, with the good financial returns possible, to stimulate their production. Soil and climatic conditions are generally favorable over large areas of Canada, and just now the "back-to-the-land" awakening is leading many townsmen to think they can undertake this class of farming, with chances of easy success. But, whether people of town or country, there are certain conditions to be considered in embarking upon a venture of this sort. As usual, much depends upon the man. That he comes from the city does not mean that he will fail in the enterprise. In fact, if he is a good business man, his urban experience may be of distinct advantage in an industry requiring such alert attention to detail, and, if need be, a willingness to depart from the footsteps or customs of others.

There is first of all the question of fitness of soil and climate. There is little risk of serious error in this particular. Without venturing so far afield as to engage in what might prove a purely speculative enterprise, one can usually locate where, to some extent, at least, experience has demonstrated what can be done. Certain localities jog along for years in general or mixed farming, and suddenly wake up to find themselves famous for certain specialties, such as has been the case with Prince Edward, Lambton, Essex, Norfolk and other counties that might be cited in Ontario. The natural possibilities were there all along, and it was only a question of time when the combined enterprise of a few progressives would bring the productiveness of the district sharply into the public eye. On this score, then, no serious mistake need be made. Whether for home or market, this class of farming may well be called an art. It is necessary to be so situated as to be able to produce a variety of crops of fancy quality, and seasonably in fairly constant supply, if one is to "clean up" say \$10,000 a year, net, as reported by an Ohio man near the City of Cleveland, from 12 acres of land, 2½ acres of which he has under glass. The prospective gardener may consider himself singularly fortunate if he can combine in his plantation a variety of soils that will grow such a range of field crops to perfection as celery, tomatoes, onions and cabbage. As a rule, heavy clay soils are to be avoided in vegetable or small-fruit growing.

Nearness or accessibility to good markets is the next consideration, and, in close relation with