[FOR THE CRITIC.]

HOPE'S BRIGHT STAR.

Oh, walk thro' this world with a cheerful step And an all unclouded brow, Increme not the sorrow to-morrow may bring By brooding over it now.

The sunshines of life are fleeting enough— Its atorins are frequent and long— Its pleasures like notes found ling ring Of the scarcely remembered song

But the darker the faith that's before us,
I'he clearer our light should shine,
And to Hope's fair star o'er shining bright,
Our course we should ever incline.

When adversity's tide has rolled o'er us, When foudled fortunes flee, May be the best time we can steer our bark Triumphant o'er life's sea.

With a manly step and a true heart's power, Though wild waves threatening rise, With a mind unmanned by passing foars, Watch Hope's bright star in the skles.

And when the wild tempest hath spent its rage. And the sky is fair again. The star will shine bright o'er the crystal tide "Tis never looked for in vain.

Then walk o'er the earth with cheerful step And all unclouded brow, Increase not the sorrow to-morrow may bring By brooding it over now.

MAC.

BEST METHOD OF GROWING AND CULTIVATING AN ORCHARD.

A paper prepared and read by Mr. D. B. Newcomb, at a meeting of the Fruit Growers Association held in connection with a meeting of Pictou Division Grange, at Salt Springs, Pictou County, on the 2nd day of July, 1886. The subject was freely discussed after the reading of the paper.

Mr. President and Gentlemen,—What I have to say on this subject is what I have learnt from actual experience and observation in my native County of Kings, and not so much from what I have read in books upon fruit culture. In some respects my experience agrees with published theories, in

many it differs widely.

In the first place, select the best piece of land on the farm for this purpose; and the best for this purpose is a deep, mellow, fortile, loam soil, moist but not wet, with natural surface and subsoil drainage. If you have not such soil on the farm choose the nearest to it in quality you have. natural drainage is not possessed sufficiently to carry off all surplus water and allow the soil to dry readily in the spring, or after a heavy rain, under-Some books teach us drainage and surface drainage must be resorted to. that a soil with pan underneath is more favorable for fruit trees than a porous subsoil. I do not believe a word of it. The best growing and producing orchards that have come under my observation are upon soil in which the roots of the trees can run to any depth they may require for moisture and nouishment; and to give them a strong hold of the ground; and if the subsoil is mellow the roots will run to considerable depth, which will give natural strength, vigor and productiveness to the tree. On most of the farms in any county of this Province there is, I presume, some variety of soil, ranging from sand to clay, and from dry to wet. Select the best you have, without too much regard as to its particular location on the farm. I hope there are no thieves in Pictou County who would plunder an orchard because necessity had compelled the farmer to plant it some distance from the house. The end having home selected allows your whole attention in the house. The epot having been selected, allow your whole attention in the matter of cultivating an orchard to be first occupied in preparing the land and preparing for planting, before listening one moment to the tree agent. Don't think of ordering a tree until you are fully and completely ready to plant it according to the best method known to experienced orchardists. It is the agent's business to sell and make a profit, without regard to what becomes of the trees afterwards; and more mistakes are made by farmers in ordering trees before they are ready for them than in any other respect as to orchard culture. The drummer drums up an order from a man unprepared for planting. He may think he will get his land and compost ready, but his other work drives him, the trees are delivered before he can prepare for them, and must be paid for and planted. Holes are dug in the ground and the trees are set out in a hurry, in such a manner as will result largely in a waste of money and labor. This is discouraging, and I say emphatically, keep your hand off the tree agent's order sheet until you have fully prepared your land and your compost heap for setting properly the trees you wish to order. Remember that one year, or two years lost in

the trees you wish to order. Remember that one year, or two years lost in the beginning, in time of planting, while properly preparing for successful culture, is likely to be four or five years gained in the production of fruit, with a corresponding increase in quantity and quality in the end.

Now as to the preparation. Planting an orchard, or increasing the area already planted, is simply an investment upon which the party expects or intends to receive a profit, direct or indirect, at a future time, which should not exceed ten years. I hold that it is a better investment than a life assurance. In fact, an investment on the farm, or in other good security, is the only life assurance a farmer should meddle with. Our aim then in making the investment in orchard is to have the most profitable return in the shortest practicable space of time. This is arrived at more by a proper preparation for planting than in the mere art of setting out the trees.

First, then, let the land be thoroughly cultivated in root crop, with deep ploughing and manuring, for some two years, and thrown into ridges or lands as wide as you wish to have the rows of trees apart, by twice plowing the same way, so as to afford a pulverized soil in the dead hollows, in the lines of which the trees will be set, and such deep plowing will afford so subsoil drainage in the lines of the rows of trees, and will facilitate the after cultivation as well as the first setting of the trees. The ridges so ploughed should not be less than 33 feet wide, so that the rows of trees will be that distance apart. I am confident that apple trees should not be a less distance, in any county of this Province, and in Kings County they should not be less than 40 feet apart. On good soil under proper cultivation, even at the distance, the branches will meet between the rows in twenty years. On some farms trees set 33 feet apart fifteen years ago are now meeting in the branches.

While the land is being prepared, as indicated, the compost help for setting the trees should be under preparation, so that the land and the feel for the young trees shall both be ready at the same time. By no means think of planting young trees half denuded of their rootlets—in some them most wholly stripped of root fibres—in coarse, raw, cold soil, to raise them with satisfactory success, no more than you would think of raising a young calf to profit on straw and turnips, without any milk. The young tree nor fairly be compared to the young animal that requires food easily assummented, and rich enough to give it growth and vigor at a tender age, until it can support itself on coarser food and raw material. You certainly must be that here is where one great mistake lies in starting an orehard, in lies setting out the young tender trees in the common soil of the land in a hurried manner, and so let them become stunted in the very first instance.

As to the preparation of the compost heap, I should say, the first consideration is to be sure and have plenty for the number of trees to be planted, sufficient to give a horse-cart load to each tree; for it is not expected to be very strong, but well rotted and pulverized. For the manner of proparing this compost I had better quote from Mr. Cole's "American Fruit Book," which is good authority. It says: "Compost for all kinds of trees, etc. One cord or 106 bushels of mud, muck, peat, or heavy loam for dry sandy land, or the same quantity of light loam for clayey, muddy, or maintenance of different kinds for a sail of ury sanuy man, or the same quantity of light learn for clayey, muddy, or moist soils, or common learn, or a mixture of different kinds for a soil of common texture. Add 30 bushels of manure from the stable or hog-pen. Add 10 bushels of wood-ashes, half a bushel of salt and a peck of plaster; a little less of these for moist land, and more, or twice as much, for dry soil." But he further says, "to which may be added any of the materials named in this chapter." The materials named in the chapter from which I am quoting are: pattern wood have strong leaves sayulant chains chapter. am quoting are: rotten wood, hay, straw, leaves, sawdust, chips, shavings, weeds, soap suds, sink water, urine, bone manure, horn shavings. "Almost every vegetable substance in liberal proportions, animal substances in a moderate way, well propared, and mineral substances in profusion or in a small way, according to their strength, are beneficial to trees when properly propared and applied, and a variety is usually the best." Mr. Cole's recommendation amounts to this: A compost made of suitable earth mould (and leaf mould if practicable) with one third its quantity or bulk of good manure from stable or hog-pen, and one-tenth of wood ashes, and salt to season, and plaster to prevent the escape of ammonia, and lime to neutralize acids, and to which compost may be added, while being propared, a portion of any or all the ingredients recommended as being good for trees, the whole to be thoroughly mixed and rotted before using for planting, cue being taken not to have it too strong, but well pulverized, being simply not enough in plant food to stimulate the young tree into healthy growth at the first start.

Now, I contend that any person wishing to grow and cultivate an orchan successfully, should be prepared, as I have endeavored to show, before he orders his trees, so that he is cure to be ready. When thus prepared, the trees should be planted in cloudy and moist weather, if possible; a place prepared for each tree in the line of the dead furrow of the ridges—not a mere hole dug out—but a place as large as a cart wheel, in which a sufficient quantity of this compost is placed in which to plant the tree, carefully placing all the roots and rootlets in such a position, as nearly as practicable, at that which they occupied before being taken up from the nursery, first having smoothly trimmed all the broken or bruised roots. After such careful planting, with some of the natural soil placed around the tree, and carefully pressed down to keep it firm, if a healthy and vigorous start is not made by the tree, the fault is not yours, but that of the nurseryman or tree agent. It must be borne in mind, however, that if the season is very dry after first planting, mulching with half rotted straw on such substance should be resorted to; but I have no confidence in watering trees by hand, to save them from drought; mulching is far better.

It will be proper here to note, that the young trees must be protected from the operations of mice in the winter. When the snow is deep around the trees, the mice will sometimes shelter at the stock of the young tree and feed upon the bark, thus girdling the tree and destroying it. They are mere likely to do this if the land is in stubble, but will sometimes do so in heed land. A common method of protection is to bank up each tree with earth trom a cart, late in the fall, and spread the earth off on the land in the spring. I think the easiest method is to watch the snow in the winter, and as it gots deep enough about the trees to be likely to shelter the mice, trest it down hard with the feet around each tree, and so keep treading the snow down about the trees through the winter, keeping it so firm that it cannot afford shelter for the mice. I have never resorted to any protection myself, and have only lost but few trees by mice, yet I have had enough of their

operations to know that it is a matter of some importance.

Now that we have considered the planting of an orchard as the first step to growing and cultivating, the next and most debutable question is, by plough or not to plough an orchard. I recollect having recently read in an