

APPLYING MANURE TO THE SURFACE.

Whether putrescent manures should be applied to the surface of the soil, is a question on which the opinions of distinguished agriculturists are far from being unanimous. The right decision of the question depends in our view, upon the following circumstances.—

1. The condition of the manure to be applied.
2. The character of the soil for which it is intended.
4. The nature of the crop to be benefited by it.
4. The time of the year when the manure is to be carried out.

1. If the manure to be applied has been composted, or if the process of fermentation has already spent its force upon it, there can be no serious objection to its being spread upon the surface; since the gaseous exhalations having already escaped, it is chiefly secured against the ravages of the atmosphere; and from infiltration there is nothing to fear, as that is the very process best adapted to bring the decomposed particles in contact with the mouths of the plants which are to feed upon it.

2. If the soil for which the manure is intended, be very porous to a considerable depth, the nearer the surface the manure can be deposited, without too much exposure to the atmosphere, the better; it being evident that the nutritive juices will soon descend beyond the reach of the plants, if it be in the first place buried too deep.

3. If the crop to be benefited consist of any of the finer grains or grasses, the application of the manure to the surface (harrowed in, in the case of grain) will have a greater present effect than any other mode of application, as the roots, that is, the mouths of the plants, lying close to the surface, will have the readier access to their food. That natural meadow land can thus be made to yield a greater burden of grass than by any other means, scarcely admits of a doubt.

4. If the manure applied is summer-made manure, which must be carried out in the fall, this mode of application will have another argument in its favor. By being spread at this season of the year, after the heats of summer are past, the fermentation and evaporation will be but slight, and the rains and snows which may be expected to fall upon it in succeeding months, will either wash it into the soil, or so imbue it among the roots of the growing crop, as quite effectually to shield it from the wasting action of the atmosphere the succeeding season.

One thought more upon this subject. With the relation of plants to the atmosphere as a source of nutriment, we are as yet much less acquainted than with those which they sustain to the soil; and agricultural science, in its onward progress may develop the fact, that manures applied to the surface, by exerting a direct and powerful agency upon the leaves of plants, and thus promoting an increased absorption of the nutritive particles of the atmosphere, may prove more beneficial, especially in the case of grasses and the finer grains, notwithstanding the losses they sustain from evaporation, than they would if buried beneath any portion or the soil. *Foot's Prize Essay.*

BOOK FARMING.

"I pity the stupidity of the man who thinks that if we use books, we must close our eyes against the light that is beaming upon us from other sources; or that we must become mere theorists, and the victims of ruinous experiments. What! does a man lose his own common sense, his prudence and his judgment, whenever he takes up an agricultural paper, or opens a book upon husbandry? Cannot one make himself acquainted with the doings of others, without losing his power to judge

whether it would be well for him, in his circumstances, to copy their examples? Our brains are not so weak as this. The knowledge acquired from books does not make us all mad. But if it did, there would be more zest and true enjoyment in the learned mad-man's course than in that of him who has learned without, and who thinks that books cannot make him wiser. I ask what book-farming is? Common book farming is, learning by means of books, new facts, opinions, results of experiments, modes of operation, and the using such parts of the information as can be turned to profitable account in our individual situations. If this be folly, we are content to be called fools. An agricultural paper will be worth to you every month, if not every week, more than its annual cost."

GARDENERS' DEPARTMENT.

As the season will shortly be at hand for gardening, we consider it our privilege, as a conductor of an Agricultural Journal, to devote a portion of its columns to subjects which will have direct reference to the science and practice of gardening. The operations of Horticultural pursuits are most interesting in all their details, and, in point of profit, no labour gives a better reward, to say nothing of its comforts and luxuries, than that performed in the garden.

No family can sufficiently appreciate the advantages that result from a well-stored garden of vegetables, fruits, and flowers. The former might easily furnish half a support to a family, and at the same time constitute the most healthful and agreeable diet; and the latter would improve the taste of the junior members of the family, and make home agreeable and inviting. The most scientific, of both sexes, throughout the civilized world, have been celebrated for the delight which they evinced in gardening pursuits.

We are sorry to say that the people of this country have not cultivated their taste in this respect to any extent. This, perhaps, may be attributed to the fact, that the subject has not received that attention that it deserves from the Canadian Press. We shall endeavour to make up this loss, by devoting about two pages of each number of our Journal to Horticultural subjects. With the exception of a short Calendar, which we shall prepare monthly, the articles will be principally selected from our contemporaries and standard authors. Those selections will be made with a view to profit our readers.

CULTURE OF FRUIT.

We propose to furnish our readers occasionally with directions for the cultivation of fruit, embracing everything of consequence from the apple to the strawberry; with the culture adapted to each, and a selection of the most desirable varieties, for those who have but little land, as well as for the farmer's orchard. We intend to furnish one number of the proposed series once in each month. To those who have large fruit gardens and orchards, every thing relating to their management, every thing by which their culture may be improved, must of course be a matter of importance; and to those whose whole farm perhaps consists of but half an acre, or even less, and there are many such among our subscribers, it certainly cannot but be an object of interest to make the best of that little. To such, it is indeed far preferable to have fine, well bearing trees, of excellent and seasonable varieties, than to have their limited grounds occupied by trees whose only product is small unpalatable fruit.

No one, however limited his means, or how little the land he occupies, should be deterred from the cultivation of *first rate fruit*. A tree of the best variety costs but little more than the worst—and will grow in the corner of a small yard, as well as on the richest domain. A dozen trees of the finest selection, will cost but three or four dollars, and may be properly transplanted for half that sum. In five years, if well taken care of, they will afford a return for the labor bestowed; and few would then be willing to part with them for five times their cost. The proprietor of the village garden, will find many pleasant hours of recreation in their management, and an agreeable and useful occupation will be furnished to his children. Indeed, the culture, propagation by budding and grafting, and a knowledge of the diseases of fruit trees, should be considered as an indispensable accomplishment in a young man's education.

The first thing to attend to in planting fruit trees, is the *selection of the ground*. This, it is true, is often in a great measure beyond our control; but still, even in a quarter of an acre, if there is any difference in the soil, there is some choice; as each kind may be more nearly furnished with its appropriate soil, than where no such attention is given. Whenever, therefore, a choice can be made, the apple should have ground which is rich and moderately moist; the pear, cherry, apricot, and peach, a deep loose soil, more sandy for the cherry and peach, and the quince a rich moist soil. But if the ground be of tolerable fertility, much more depends upon a preparation by digging and filling the holes, than any selection.

There is probably no natural soil in the state well adapted to the proper extension of the roots of fruit trees, without previous loosening by digging. We have seen peach trees transplanted into soil naturally loose, linger year after year with little growth; while on the other hand, trees set in a heavy soil, properly prepared, have made a growth the first shoots an inch and a quarter in diameter. In the former instance, the trees were put in holes barely large enough to receive the roots; in the latter, they were dug six or seven feet in diameter, and fifteen inches deep, filled chiefly with the loose soil thrown out. In the former the roots had to work their way through the undisturbed subsoil; in the latter they penetrated freely through the artificial bed of mellow earth. Much of the success in growth depends on digging very large holes, (at least 7 feet in diameter,) yet there is nothing we have found more difficult to induce others to practice.

The distance asunder, is a point which should

"For a Fruit Garden, a western aspect is generally best, because it is the least subject to sudden transitions of temperature. Severe vernal frosts often prove injurious, or otherwise, according to the weather that follows. If the sky be overcast in the morning, and the air continues cold, little or no damage occurs; but when the sun breaks out warm, the injury is greatest; and the more so, when the trees are most exposed to his rays. For this reason, a hill or a wood on the east side, may prove very beneficial.

"A northern aspect would go far towards insuring regular crops, of the peach, nectarine, apricot, if protected from the sun and warm winds by a belt of evergreens. On sandy soils especially, the reflected heat is often sufficient in autumn or winter to start the buds; and snow and ice have been successively heaped round trees to prevent this disaster; but a northern aspect would probably render such labor unnecessary.

"Dry, firm ground should be chosen, preferring a sandy or gravelly loam, though clay will do with good culture. Wet, peaty, or spongy soils are apt to be frosty; for the radiation of the heat is much greater than from firmer lands.—D. Thomas, in Trans. N. Y. State Ag. Society