

## Garden and Orchard.

## Horticultural Notes.

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## BLACK WALNUT.

Among enquiries that frequently reach us is the best methods for treating and sowing the seeds of black walnut and other nut bearing trees. A point of vital importance is that the seed should not become dried before planting. Drying is nearly always fatal to the germination of walnuts or butternuts. When collected in small quantities the nuts may be mixed with damp sand and stored in a cellar till late autumn, when they should be sown in rows or beds, covering with three to four inches of earth. Treated in this way they will germinate freely the following spring, under the action of the winter's frost. It is wiser in this climate, as far as possible to plant the nuts where the trees are to stand, as transplanting has a somewhat injurious effect on all nut trees. If they have to be removed take them up in the fall, cutting deeply with a long digging spade, so as to leave as much root as possible, as few trees make a greater root extension in a single season than the black walnut. The bed from which these are taken should not be disturbed for a year, as it will be found that a number of the nuts which failed to germinate the first season will grow the second. The black walnut could be cultivated with profit over a large portion of Eastern Canada and it is a matter of regret that it is not more generally planted.

## INJURIES FROM MICE.

As the subject is of considerable importance, I append instructions which were sent out last year in answer to a number of queries. As varying conditions often call for different treatment, the following preventives and remedies are suggested:—

**Preventives.**—1. Remove all rubbish that may lie about the orchard affording hiding places for mice.

2. In the autumn, before the ground freezes, bank each tree with earth to the height of 12 to 15 inches. This was done the past season to the 1,700 trees in the orchard of the Central Experimental Farm, at a cost of .53 cents per tree, or a little over one-half of one cent.

3. Tanned paper, which has been allowed to dry for a few days after being cut into squares of the required size, is also very serviceable. It may be fastened round the stem of the tree with twine, or may be held in place by a single carpet tack pressed through the overlapping edges into the bark.

**Remedial.**—1. In all cases with a sharp knife pare the wound smoothly. If the wound is 18 inches or more from the ground, cover completely with a thin coating of grafting wax, and wrap with a cloth to prevent wax melting and to assist in excluding the air.

2. When the wound is near the base of the tree, cover with grafting wax or green cow dung, held in place by rough sacking; or the tree may be banked with earth to a point above the wound, which is preferable.

The main idea is to prevent evaporation, by excluding the air and keeping the tissues in a normally moist condition. Under such circumstances, when taken in time, trees will frequently recover, though completely girdled.

## MANITOBA EXPERIENCE WITH FRUIT TREES.

Nelson Bedford, Stodderville, Man., writes as follows:—"On several occasions you have kindly sent packages of trees of various kinds to me, for which I wish to express my thanks, and also to give the truest account possible of what their progress has been.

Two years ago last spring I received one apple tree (Duchess of Oldenburg) and several currant slips. The Duchess did well till winter, and then froze down, but grew again next year, and froze again in the winter. This year I grafted a transcendent crab-apple tree on to the root, and it is doing well.

"The currants, everyone, died. I feel sure it was because they were too far advanced when they arrived. Our place is very favorably situated for a garden, and our currants are usually a

heavy crop. I have two transcendent crab-apples bearing this year, and a number of younger ones all doing well. De Sota plums also do well here and bear every year. I have quite a few grafted on wild plum trees, and find them very much improved in size—and, I think, in every respect. I tried one Ostheim cherry tree, but it died first winter. One year ago last spring a package of 100 trees came, and a large percentage grew. I may mention the ones I like best—four evergreens (white spruce), one lilac, six elms, besides cottonwood, willows and poplars."

This is inserted for the reason that such experience is of exceeding value to co-laborers in Manitoba. Your application for cherry buds arrived too late to be included in the distribution made this season, as the budding period closes about September first. Budding itself is a simple process of changing the variety of a fruit or other tree by inserting under the bark of the one a bud of the other.

There are many kinds of budding, the simplest and most generally practiced being stock or shield budding. This operation is performed before growth has ceased, or, as nurserymen say, while the "bark slips"—in the case of cherry trees, early in August. The stocks to be budded are planted in rows the year previous. Scions are taken from vigorous, healthy trees; these furnish the buds, which are sliced from the young shoot, using a sharp knife. A T-shaped incision is made in the stock, through the bark, near the ground. The cleft is opened sufficiently to admit the wedge-shaped end of the bud, which is gently pressed downwards till firmly inserted, when it is firmly bound in place by basswood bark wrappings, wool yarn or raffia (a fibrous grass from the South). If the bud unites, the stock is cut back the following spring. The whole strength of the root is thus directed to the development of the new bud, which grows so rapidly under these conditions that in the South saleable trees are formed by the growth of a single season. In the North, where the growing season is shorter, good trees are grown by this method in two and three years.

## Poultry.

## Egg Production on a Large Scale.

Poultry keeping, like that of every other department in live stock breeding, requires experience in order to give the satisfactory results that will make it a financial success, which is the interesting accompaniment of every undertaking, whether entered upon with a view to earning a livelihood or merely as a pastime. Among the requirements for poultry keeping is a suitable soil. Although moderate success may be obtained where due care is exercised, yet it is always more or less uphill work where damp, heavy clay or cold land is the seat of operations; while, on the contrary, if the soil is dry and warm better fowls can be raised, and with greater ease to the operator, as there will be more freedom from disease, especially among the young chicks.

When it is intended to enter largely into the business well laid out buildings must be provided, to which conveniently arranged yards are attached, so that a frequent plowing or otherwise breaking up the ground that quickly becomes foul through the presence of large numbers of birds. This will repay many times for the work it entails. It will also be found necessary to so arrange yards that at the growing season they may be shut away, so that suitable, quick-growing crops may be sown in order to provide the shade that is among the essentials for success in poultry raising. It is commonly understood that this business cannot be so profitably carried on a large scale. Parties often begin with a small number of hens with a suitable run, and the venture is successful above all their expectations, and are beguiled into trying their hand on a much larger

scale, basing their estimate from the same standpoint of profit. In this they forget the amount of feed that all the best foraging varieties are enabled to procure for themselves, which is not only a vast saving in the feed bill, but largely conduces to that still greater essential, health. The conduct of a poultry farm on a large scale is much easier when egg production is the object in view, for in the other case of raising chickens for the market more territory would have to be provided in order to obtain the same amount of profit, and it is very doubtful if chicken raising in large numbers can be made to pay, except where a high price can be obtained from a well established trade. This is very different from the ordinary barn-yard fowl, that eats what would otherwise be wasted, and picks much of its living from the adjoining stubble and grass fields.

The most suitable plan of a building for keeping hens for egg production is long and narrow, with windows facing the south. There should be a passage, four feet wide, extending the entire length of the building, and on the north side. The divisions between the compartments may be built with wire netting, which will add to the airiness of the building, and will also largely contribute to the appearance. All partitions should be boarded up two feet from the floor, in order to keep the inmates quiet and less likely to develop pugnacious proclivities, to which all breeds are more or less disposed. Sixteen feet wide is about right when a breeding stock of fancy varieties is to be kept, but if eggs for market is the aim it may be four feet wider, which would allow the compartments to be sixteen feet deep, and if fifty are to be kept in a yard, 12½ wide. In this way a building 100 feet long would accommodate four hundred hens.

Just as before stated that it requires experience to succeed in an undertaking that is commenced with a view of earning a livelihood, it will be found equally necessary to locate where land is moderately cheap and yet convenient to railroad shipping advantages. It will also be difficult to purchase a choice selection of laying hens, as these must be young in order to give anything like good results in egg production. It is also stated that in order to obtain a thoroughly satisfactory stock they must be bred, which would add to the difficulty at the outset, but this plan would doubtless pay better, as by this plan they could be sold off just after they had passed the second winter, when the highest prices could be realized, as at this age hens are yet eatable and they have passed their most profitable laying age. In breeds it is better to keep strictly to the varieties that are known to be non-setters, among which Leghorns, white and brown, are capital layers, and are among the hardest of the laying sorts. Others are also highly recommended, such as Black Spanish, Minorcas, Andalusians; the latter would likely cost more for foundation stock, but fowls quickly multiply when due care and attention is exercised.

Sufficient land is required for producing all the vegetable or bulky food required in the daily ration for the year round, for without green food both the health as well as the expected egg production will quickly wane, and cultivating the crops for this purpose should nick well with the time required in giving attention to the flock, while the ground they run over must be changed by cultivation in order to keep the fowls healthy. In fact, poultry require a change; and feeding grain, either whole or ground, and mixed into mash, without the more bulky green food, such as grass in summer, and roots, cabbage, etc., in winter, would suffer; and, in this way particularly, they are like other large inmates of the farmyard, which would fall away if nothing but concentrated food is supplied them.

In our next issue we will give a plan of a building that is suitable to a large or small number of fowls, together with the best plan for the accompanying yards.