The Black Knot.

We have received from "R. M.," of Rosebank, Prince Edward Island, a specimen of this disease, which he says has been spreading for the past three years amongst the plum trees of the Island, and with invariably fatal results, at least so far as his neighbours are concerned. In his own case he has been at the pains to cut off every branch, both great and small, on which it has broken out, with what success he is waiting to see.

From "G. M.," of Borelia, we have the complaint that this disease is ruining his plum trees, and from both come the inquiry what will cure it, or what will prevent it?

This disease has been a great source of annoyance to the cultivators of the plum, and many very profound articles have been written about it, in which hardly any two writers agree as to its cause or cure. If let alone, it is very sure sooner or later to kill the tree, and up to this time nothing better than prompt and thorough amputation has been discovered in the way of treatment.

As a preventative there is nothing positively known. By way of approximation, it is strongly recommended that the trees should be planted only in thoroughly drained soil, be supplied with sufficient fertilizers to keep them in a state of healthy growth, and the ground beneath be frequently stirred, and kept free from grass and weeds.

Some years ago the writer instituted a series of experiments to ascertain whether these excrescences were not caused by some insect, as are the galls on the oak and the like; but although many insects were found in these black knots, differing in species, genera and families, yet to none of them could these knots be attributed as a cause. The insects seemed rather to have chosen them as convenient places for their several purposes, than that they were caused by their agency.

A more probable cause than insect origin is to be sought among the parasitic fungi. These minute plants, so small as to be seen in many instances only with the help of the microscope, scatter their seeds or spores of such infinitesimal size that they find their way into the circulation of the trees and plants, and carried by the sap into the branches start there into growth, whenever conditions favourable exist, and produce such derangements in them as are perceptible by us, and often destructive to the trees or plants upon whose life they feed. To some of these parasites are we disposed to charge the presence of the black knot on the plum trees, but we are too ignorant as yet to speak positively on this point, much less to tell how their ravages may be prevented; indeed we barely know enough to say that by watching for their appearance and promptly cutting the knots away, without even waiting for them to become black, in all cases that have came under our observation, the disease has been kept in subjection, though not radically cured.

Specimen Pelargoniums without Stick or Tie.

In selecting a cutting, choose a firm young shoot, take it out with a heel, dress off any raggedness, leave all its foliage entire, and insert it in a very small pot, in loam that has been thoroughly exposed to the action of the weather, and pure sand. These constituents of the soil should be used in equal quantities, *quite dry*. The pots being small, a single piece of crock is sufficient for drainage; fill the pot and dibble in the cutting just so deep as to leave the lowest pair of leaves above the surface, shake the soil well down, then place the pot for a few minutes nearly to the top in soft water. When wet through, take the pot out and set it aside to drain; then plunge it in sphagnum (moss) in a larger pot, and place it in a frame or house of a temperature from 50° to 60°, very near the glass, almost touching it, and frequently pour warm soft water into the sphagnum, but not into the cutting-pot.

In six or eight weeks, when the cutting has become a plant and grown two or three inches, cease watering, draw the pot entirely out of the sphagnum, and in a couple of days take the heart out, cutting immediately above the pair of opposite leaves nearest the surface. In three or four days a pair of shoots will have started, when a little water must be given and the pot re plunged in sphagnum. In a fortnight the young shoots and leaves will be grown, when repotting will be necessary, which should be into a pot a size larger. Shake the soil off the roots, and trim them a little with a knife. The compost should be six parts loam, one part sand, and one part fine old leaf mould, all dry and previously prepared by exposure to the weather, and well rubbed together. Place two or three pieces of crock in the bottom and pot firmly; water as at the first potting, and place in a close frame; shade from bright sun for a few days, when admit a little air, which must be daily gradually increased for a fortnight, then admit all the air available; water carefully; never allow flagging, and on the other hand, never give water until wanted, and then give it copiously.

In about eight weeks cut back the two shoots just above the first pair of leaves on each, keeping the plant rather dry a few days before and after. When the eyes to which it has been cut back have started, shake out, &c., and re-pot as at last potting, using a larger-sized pot (four inch); in all else do as then. After a time cut back to the bottom pair of leaves on each shoot, as before described, and then pot again into a five inch, again into a six inch, and again into a seven inch. When established in the last, cover the surface well with sphagnum, which tie down firmly as nurserymen do when sending out, and make a cord fast round the rim, to which, at opposite sides, attach another to a loop about twice as long as the pot's depth, then on a nail in a light airy part of the greenhouse hang it UPSIDE DOWN. Here it remains, occasionally turned round and regularly watered through the hole at the bottom of the pot, which should be larger than usual, and the drainage inside should be placed to admit the water freely—a large hollow shell or very small pot inverted over the hole at the last potting.

About ten weeks before the plant is required in perfection, water very sparingly for a week or ten days, but not to an extent to injure the foliage; then water freely, using liquid manure once a week. Five weeks before the appointed time, take it down, place it on a reversed pot in an airy, light position, right side up. In a few days the points and leaves will turn to the light, and a handsome plant of perfect form is the result.

As the flowers begin to open, shade from bright sunshine, and keep the house a little close, warm and moist, and you have a beautiful specimen Pelargonium without stick or tie.

After blooming, dry off, cut down, shake out, cut back roots, and commence again in the smallest pot it will go into.—H. NEWTON, *in Gardeners' Weekly Magazine.*

Grapes in Canada.

To the Editor of THE CANADA FARMER:

I now proceed to redeem my promise to give you my experience, for the benefit of the grape growers of Canada, and I hope every farmer will become a grape grower.

In describing the different varieties, perhaps the best way will be to point out only those that seem to me worthy of special attention, for three-fourths of the grapes advertised for sale are utterly worthless for open-air growing in Canada.

As to foreign grapes, let me say that I have tried them, and am forced to the conclusion that all foreign grapes, without a single exception, are worse than useless, because they only disappoint the cultivator and discourage him from trying better kinds. These foreign sorts generally bear some very fine grapes the first year, if the season be favourable, and then comes the inevitable mildew, neither roots nor wood mature perfectly, and there is an end of all satisfactory results. From my experience, I most emphatically believe that only American grapes will give permanent satisfaction in America.

Well, then, what shall we plant? This is a question beset with many difficulties, and my opinion may be worth but little, but that little has the merit of being disinterested, for I have no axe to grind; and yet I may fail to point out the very best, for many kinds of very great promise have been too recently introduced to allow of my speaking of them with confidence.

In my suggestions respecting the different kinds of grapes, I shall take the Isabella as my standard of comparison, for the reason that it is the best known, though probably very few in Canada ever tasted it at its best estate, for the reason that here it is out of its proper latitude. Grown on a gravelly soil, in a sunny exposure, and with a favourable season, it is indeed a noble grape; but for Canada generally it is full three weeks too late.

There are two varieties that have been planted sufficiently long to be pretty generally tested, and which seem to be constantly growing in favour—I mean the Delaware and Concord. The Delaware is a small red grape, from two to three weeks earlier than the Isabella, berries one-fourth the size, and clusters one-third as large. In flavour, it takes a very high stand, even when compared with the best foreign grapes. While at the Provincial Fair this season, I fell in conversation with an Italian gentleman, who admired the appearance of our grapes, but complained that the flavour was not good. I handed him some Delawares, and after tasting them, he confessed that they were good, and agreeable even to an Italian palate.

The Concord does not take so high a stand as to flavour, but is early, and seems to suit the taste of the million. In colour and size it is about like the Isabella; it is healthy and hardy, ripens evenly, and stands our winters well. These two grapes I consider perfectly reliable. JOHN C. KILBORN.

Beamsville, C. W.

A Short Code of Rose Culture.

1. THE best soil for roses is a strong loam well enriched with decayed stable manure. If the soil is not of this nature, it should be improved by the addition of such as far as possible.

2. For light soils use cow-dung and poudrette instead of stable manure, merely mulching with the latter early in May.

3. Prune at two seasons, thin out the supernumerary shoots in autumn, and shorten those that are left in spring.

4. Remember that the summer roses should be thinned more freely, and shortened less than the autumnals.

5. Always cut back to a bud which has a tendency to grow upwards, rubbing out those buds which are directed inwards.

6. Destroy aphides as soon as seen, by brushing them off or washing the shoots with tobacco water, out of doors; and by fumigating with tobacco under glass.

7. Check mildew by dusting sulphur on the leaves while moist with rain or dew.

8. Water freely during the growing season, if very dry.

9. Never buy old roses on the Manetti stock until you have proved that they will not flourish in your soil either on the Dog Rose or on their own roots. The new roses you *must* buy on the Manetti, or wait till they are raised by the slower process of budding or by cuttings.

10. Avoid plants that have been "coddled" by raising and growing in heat during their early stages of existence. Thousands of roses are annually sold which have the seeds of disease and early death previously sown by the forcing process. Such, if they live, do not grow vigorously, and often remain stationary or feeble for a length of time.

11. At whatever season roses on their own roots are purchased, they should be planted in the open ground in spring and summer only. Once established, they may remain permanently there.

12. Roses in pots should be re-potted, removing a portion of the old soil every autumn, they require closer pruning than the same sorts growing in the ground; they should be watered with weak liquid manure so soon as the young leaves expand, and until the flowering is over.

13. Roses intended for forcing should be brought into a state of rest in August or September, and be pruned shortly afterwards.

14. Roses under glass should be shaded when coming into bloom, but with a light shading only, such as Tiffany No. 1 or Scrim.

15. Most of the tea-scented roses thrive best under glass, and are worthy of this especial care. They may be grown in pots, or in a cold pit or house, or be planted out in a house, standards or dwarfs, with or without heat.

16. Buy only such new roses as are recommended from trustworthy sources. A new rose that is not at the least equal to or different from all its predecessors, is not worth growing; and to grow such is almost as disappointing as to read a new book that is not worth reading.

17. When growing for exhibition, look to form and colour as well as to size, the day has gone by for mere bulk to triumph over symmetry of form, and variety and brilliancy of colour, whether in pot roses or others.—*Gardeners' Chronicle.*