RURAL AND SUBURBAN

PREPARING FOR THE WINTER WINDOW GARDEN

The month of August is a comparatively leisure month with the plant and flower lover. The lawn, vegetable and flower gardens will not require as close attention as during the growing months of spring and early summer, thus giving a little more time to attend to the potting of plants from the house and window that have been enjoying a comparative period of rest; or possibly in some cases plants that have been started specially for the decoration of window or greenhouse for the coming winter and spring months. Plants such as palms, aspidistras, different varieties of decorative asparagus, dracaenas (cordylines), rubber plants, Boston and lace ferns, anthericums and similar decorative plants that have been enjoying a season of partial rest in some shady out-of-door nook will, in all probability, require repotting to give them fresh life and vigor for the coming winter season. Old plants of geraniums in pots and winter flowering begonias such as Begonia incarnata (Christmas pink zegonia), B. Paul Bruant, B. Argentea guttata, B. manicata and B. manicata aurea (a conspicuous variety of this thick fleshly-leaved type of begonia and very enduring as a window plant) are some of the most popular window and house plants that will need repotting at this season of the year. Callas also should be repotted as early in August as possible if they require it, to secure early flowers. Chrysanthemum and salvia plants, also coleus, iresine (achyranthes), and ageratums that have been planted out in the border, can also be taken up and potted for stock or for decorative purposes, towards the end of the month.

The tendency on the part of the amateur plant grower, as a rule, is to overpot plants, which means putting them into a larger pot than is necessary. Over-potting plants, especially for winter decorative plants, should be avoided. The plants not only require more space, and the pot also being out of proportion to the size of the plant, but oftentimes the soil becomes soddened and sour from the large amount of water needed to keep the soil moist before root action and growth commences after repotting. Soil for repotting at this season should be carefully prepared, and should be of a friable, open nature. Good drainage is another important factor towards success.

How to Prepare the Soil

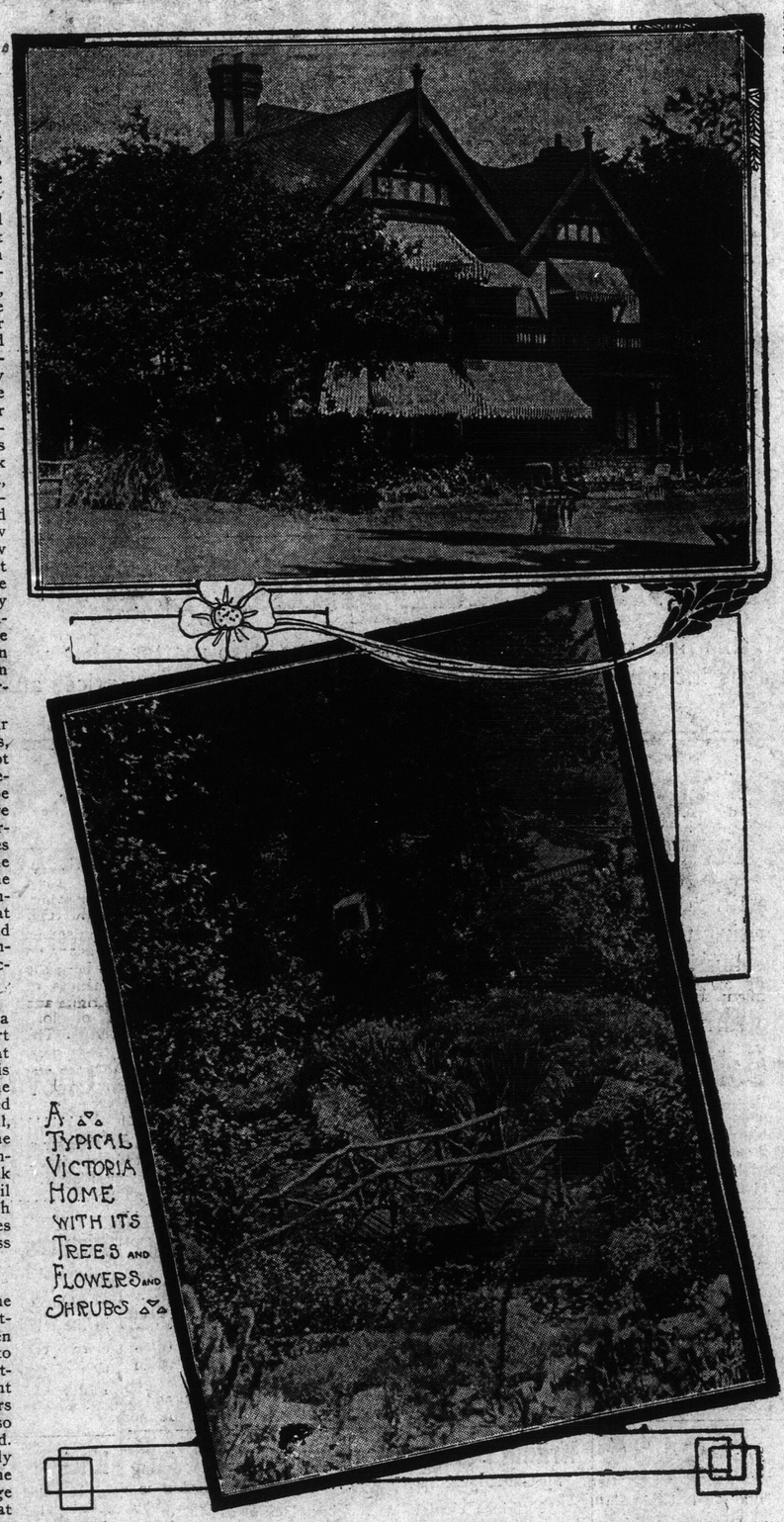
Good fresh loamy potting soil from a compost heap of three parts sod and one part cow manure or well rotted barn manure, that has become well decomposed, is the best basis for all potting soils. One part of clean fine gritty sand and one part of leaf mould mixed with seven or eight parts of the loamy soil, will make an ideal soil for almost all of the plants mentioned. For potting chrysanthemums and geraniums the leaf soil (or black soil from the bush) may be omitted. The soil should be put through a three-quarter inch sieve and all dead pieces of wood and stones removed. The fibry part of the soil, unless too coarse, should be left in the soil.

How to Re-Pot Plants

First of all, see that the soil around the roots of the plant to be repotted is well moistened but not too wet and soddened. Then knock the plant from the pot it is in so as to examine the roots, to see if it requires repotting. To do this successfully, invert the plant and pot, at the same time placing the fingers of one hand across the surface of the soil, so that the plant cannot fail and be injured. Grasp the bottom of the inverted pot firmly with the other hand, and knock the edge of the rim of the top of the pot on the solid edge of a table or bench. If the plant does not at once loosen itself from the pot, turn the pot partially around and knock it in another place a few times until it becomes loosened. If on removal the pot is found to be well filled with roots so as to have exhausted the soil, it should be repotted. If it has not done so, the pot can be carefully slipped on over the ball of earth again, the plant reverted to its natural position and settled firmly in the pot by striking the bottom of the pot on the bench or table. It should then be watered at once. An examination made in this wav will not hurt the plant if the soil and roots are not disturbed very much.

If the plant requires repotting, first of all remove the old pieces of drainage at the base of the roots. Then scrape off the top surface of the ball of earch about a quarter of an inch in depth, as well as trimming in the top edge of the ball of earth just a little. In some cases, too, a little of the soil around the ball of earth may be picked out carefully with a pointed label or piece of stick or a skewer, or the ball of earth may sometimes be pounded with the hand, or on the bench, so as to loosen up the network of roots in cases where the roots have become very dense and matted, the idea being to remove all the old stale earth possible without disturbing the roots too much. All dead and decayed leaves or growth should also be removed. The plant can now be laid on its side carefully on the potting table or bench. Then select a clean plain pot one or two sizes larger than the original—one size larger will do if the soil has been trimmed down much as described—but usually a pot two sizes larger should be used. Now place a concave or hollow piece of broken flower pot over the hole at bottom of pot inside hollow side down sufficiently large to well cover the hole, place a few more pieces also around this in the same way, so that the bottom of the pot inside is well covered. An inch deep of drainage material is not too much to ensure good drainage in large seven or eight-inch pots. Coal cinders, coarse gravel or lump charcoal can also be used for drainage material. Over this material a thin layer of the fibry part of the soil may be laid, if practicable. When the drainage is fixed properly, put in a layer of soil about half an inch deep. On this a little well-rotted barn yard manure or dry cow or sheep manure may be placed, or a sprinkling or bone meal. Fill in a little more soil on this, then place the plant in the pot, see that the base of the stem or stems of plant are in the centre of the pot, and the surface of the ball of earth on the plant about an inch below the top of the pot, when a large sized pot is used. A little less than an inch below will suffice for five or six-inch pots, the diameter across the centre of the pot gives the size in inches. When the plant is properly in its place, fill in some of the prepared soil about an inch in depth all around the ball of earth. Then get a thin piece of wood of the thickness required and about a foot in length—a piece of shingle one and one-half inches wide will do—with this pack the soil fairly firm around the ball of earth. Continue the filling in and packing until the surface of the soil is about half or three-quarters of an inch below the top of the pot and just covering the surface of the ball of earth slightly. Then lift the pot about an inch from the bench with both hands, and give the bottom of the pot a slight bump on the bench to settle the soil down, level and loosen slightly the surface of the soil.

The piece of wood mentioned is always in evidence on potting benches where large plants are handled by expert professional plantsmen, and is called a "potting stick," several sized sticks usually being kept on hand. The use of this potting-stick prevents any open spaces being left around the roots of the plants, the latter being an undesirable feature for the well-being of the plant repotted. Chrysanthemums especially should have the soil packed firmly around the roots when being potted or repotted.



Watering

Water the plants repotted well once, so that the water runs out from the bottom of the pot. Then avoid too frequent and copious waterings until root action and top growth has started. This is an important point as oftentimes, if the plants wilt or wither a little, the over-anxious plant-lover gives more and more water until the soil is thoroughly soddened, a condition that retards root action and growth, and injures the plant and may possibly have fatal results. Keep the soil moist but not soddened, for newly-potted plants especially.

Give the plants a sprinkling or spraying overhead once or twice a day with clean water, especially if the weather is hot, and place them in a partially shaded, sheltered place not exposed to sweeping winds, for a week or so. This is far preferable to soaking the roots of the plants all the time with water at a time when root action has been checked and the plant is not in a condition to absorb or take up much water from the roots. Good potting soil, good drainage, soil packed moderately firm, partial shade, and not too much water are the main points in successful repotting.

Repotting Callas

These plants should at this season of the year be in a dormant or semi-dormant state after their summer resting period. Unless the growth has well started all of the soil can be removed by knocking them out of the pot and removing the old soil altogether. The fleshy tuberous like roots should be potted in well drained pots in good rich potting soil. Keep the soil moist, not soddened, until several leaves have developed when they can be watered more freely. Later on in the winter some liquid fertilizer ca[illegible]m. By using a moderate sized flower pot for callas and giving them some fertilizer, better flowering results are attained than by using too large a pot for them. Shade the plants from hot sun at all times.

Top-Dressing Plants

Plants that do not require re-potting can be top-dressed to advantage. Remove about an inch of the old soil and fill in with a compost made of half potting soil and half well rotted barnyard manure or dry cow manure or bone meal. This plan often helps the plants materially when they do not actually require repotting—Wm. Hunt, in Canadian Horticulturist.

TIME TO APPLY LIME

Although lime is often applied in the spring, the best results have been obtained when used in the late autumn, for the reason that the winter rains and frosts have the tendency to thoroughly mix lime and soil together which is never done quite completely by mechanical means. It is necessary when slaked lime has done its chemical actions on the soil that it should be converted into bicarbonate of lime absorbing carbonic acid before it can be assimilated by plants, and it is known that in late summer and autumn the soil contains so much free carbonic acid, due to the rapid decomposition of the humus in the warm weather, that the lime is quickly converted into plant food. A soil well treated with lime holds moisture much longer than does unlimed land; and the winter rains are held in the soil in reserve for spring. If land is limed in spring, the effect of holding the winter rain is lost and is also dries up the soil, the quick-lime taking its required quantity of moisture out of the soil itself, especially in a dry season. The effects of the lime on the soil are comparatively well known, such as ridding the land of sourness and liberating dormant plant food, and other chemical action. A liberal dressing of lime brings about the necessary action and assimilating the soil ingredients, and makes them easily absorbed by the plant rootlets. From experiments in the application of lime carried out in various parts of the world, it has been proved that the best time to apply lime to soil is during the late autumn if the best results are hoped for.

THE CODLIN MOTH

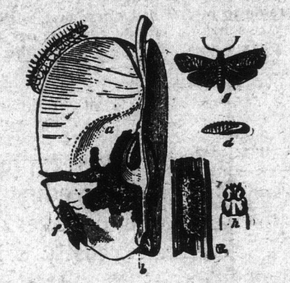
By W. J. L. Hamilton.

The codlin moth being about the worst enemy the apple grower has to contend with, it is of the utmost importance that the best methods of eradicating it should be given the serious attention they deserve.

To combat this pest successfully, the first step necessary is to study its life history. The caterpillars from the second brood of the previous year build strong cocoons for themselves in protected locations, such as in crannies of the bark, or on the underground portion of the stem of the apple tree, or on the main roots near the stem. These hatch out during a period in the next spring and early summer, extending over about three months. Those in the warmest situations emerge first, probably about the end of April, although it is not until about three weeks later that the main crop appears on the scene.

These moths of the first crop proceed forthwith to lay their eggs, chiefly on the leaves surrounding the fruit, and only very few of them on the fruit itself. The eggs soon hatch out into caterpillars which proceed to eat their way into the core of the fruit, about half of them entering at the calyx end, and the bulk of the remainder where two apples touch, and where it is difficult for spray to penetrate. Hence the importance of destroying the eggs where possible.

The caterpillars remain in the fruit for thirty-two days, and then crawl down the tree stem, and enter upon their next stage—the chrysalis form—in crannies in the bark, or other suitable shelter, enveloped in a cocoon. Here they stay from two to three weeks, according to the temperature when they emerge, and forthwith turn their attention to egg laying; this time upon the apples themselves. The caterpillars from this brood stay over the winter in chrysalis form as already described.



The puncture made by the moth is represented at (b), the borings of the larva at (a), the mature worm at (e), the moth with wings closed at (f), the moth with wings expanded at (g), and the cocoon at (i); (d), the chrysalis at (b), and the anterior part of the body magnified.

As these continue to emerge in the spring over such a long period, it is evident that they overlap the earlier hatches of the second brood, so they have to be combatted throughout the whole season until the leaves drop. Knowing their life history thus thoroughly, we are in a position to get intelligently to work to oppose them.

So far two methods of destroying these pests have been employed:

1. Spraying the young apples, just as the last flowers drop, with an arsenical spray at a pressure of 200 pounds, and with a jet of great penetrative power; and, 2, bandaging the tree stems, just below the lowest limb, with a rather loose bandage of burlap, or else with sticky fly paper, to catch the descending caterpillars. Both spraying and bandaging have to be often repeated. But, as all this has been fully treated in our spraying bulletins, I need not touch on it further. If I have excited enough curiosity in the reader to induce him to thoroughly read and digest these bulletins, which many do not, I have attained one of my objects, so I will point out a third method of fighting this pest adopted in some parts of British Columbia. (Thank goodness, we in Salt Spring Island are free of this trouble!)

That is by gathering the apples whilst the caterpillars are still in them, and at once burning them. But whilst this somewhat drastic, but advisable, method has doubtless removed a very large number of the pests, some may have survived, either through having emerged from the apple before its destruction, or by penetrating the swelling, so common on many varieties of apple trees on the fruit bearing spurs where the apples have been removed. It frquently happens that, in default of fruit, the worms enter these swellings where they feed until mature.

In the last few months Prof. W. P. Headden, of Colorado Agricultural College, has called attention to the dangers of arsenical sprays. Not only is the grass (there has no business to be any, by the way) surrounding arsenic sprayed trees poisonous, but a disease called collar rot, crown rot, or root rot is caused, he claims, by arsenical poisoning.

(a) nest of larva on outside of tree, under the old bark; (b), pupa; (c), larva exposed from nest; (d), old nest; (e) larva about to build nest; (f) the moth at rest; (g) moth with wings spread; (h) head of larva.

This statement, which appears, by further research and by analysis of the wood of the diseased trees, to be established, may cause us to modify our treatment as far as possible.

Two other factors also suggest modifications in our spraying methods. One of these is the declaration by Prof. Slingerland, of Cornell University, the great authority on codlin moth, that the young caterpillar commences to feed in the outer calyn cavity, surrounding the stamen ring, and not inside it as he once thought.

As this is much easier to coat with arsenical spray than the inner cavity where the caterpillars were previously believed to commence feeding, a finer spray and a lower pressure, can be employed, thus using less spray, and reducing the quantity of arsenic in consequence. He recommends a more misty spray, at 100 pounds pressure, strayed downwards, just as the last blossoms are dropping. This spray has been previously combined with Bordeaux to combat scab at the same time, but since the adoption of dilute lime-sulphur as a summer fungicide, which is far superior, it is well to know that arsenate of lead, which is the safest form in which to apply arsenic, can be mixed with lime-sulphur without impairing its efficiency. A dark colored sediment forms which can be neglected. Arsenate of lead to the amount of 2½ pounds to every 100 gallons of the spray is enough.

This lime-sulphur-arsenic spray not only poisons the young caterpillars, but destroys the eggs of the codlin moth, thus proving infinitely more effective than the old spray. This spraying should be repeated in a week, when also the trees should be bandaged, and again, if the pest is bad, about four weeks later. The bandages should be removed every fortnight and dipped in boiling water before replacing, and this continued during the season. The rough bark should also be annually scraped off.

Arsenical poisoning of fruit trees is most liable to occur where there is alkali in the soil. Its symptoms are, tree stunted, yellow bark, black and dead at ground level, leaves turn yellow and drop early, and later on the bark splits. The tree eventually dies.

HE ANSWERED IT

A party of young men were camping, and to avert annoying questions they made it a rule that the one who asked a question that he could not answer himself had to do the cooking.

One evening, while sitting round the fire, one of the boys asked, "Why is it that a ground-squirrel never leaves any dirt at the mouth of its burrow?"

They all guessed and missed. So he was asked to answer himself.

"Why," he said, "because they always begin to dig at the other end of the hole."

"But," one asked, "how does he get to the other end of the hole?"

"Well," was the reply, "that's your question."