

GARDEN AND ORCHARD.

Storing Apples for Winter.

In gathering apples to store over winter and for late winter use, the utmost care should be exercised to exclude bruised or damaged fruit or that which is inferior in any way. An overripe apple or one bearing a damaged or scabby spot soon commences to decay, and spreads its infection to those next to it in the barrel or bin. All such slightly damaged fruit should be stored together to be used from now on, as long as it lasts, thus being turned to good account in not being wasted nor in causing decay in sound fruit. After picking, they should be stored in a cool room or shed until the cold weather sets in. As a rule, winter apples can be kept in an out-house until well on in December by throwing a piece of carpet over the barrels during very cold nights. When severe weather commences, the best and most convenient storage is the house cellar, which should be well ventilated and kept from the influence of fire. A temperature about the freezing point is best, and one or two degrees of frost will not injure apples materially. In fact, a temperature that will freeze potatoes will do apples no harm.

Some hard varieties keep nicely if buried in the ground just before the hard, cold weather sets in. A pit should be dug in a dry place, where there is no danger of water standing when there is a rain or thaw of snow, deep enough to hold the required number of bushels, and it should be nicely lined with hay or straw before the apples are put in. Then fill near the level of the ground, cover with a deep layer of sweet hay or straw, and finish with a layer of clean boards to prevent the dirt mixing with fruit. Then put on one foot of earth. In the spring the apples will come out in beautiful condition. However, none but the hardest and best keepers should be treated to a bed of earth during the winter, for most varieties need sorting once or twice before the cold weather is over.

M. E. D. writes in *Drover's Journal*: "If one wants to keep a few of a favorite kind until late spring or summer time, it can be done by securing a good barrel and a quantity of dry sawdust. First put in a layer of dry sawdust. Then set on blossom end, but do not let them touch. When the layer is in, fill between and cover with the sawdust, and continue to put in apples and sawdust until barrel is full. Then securely cover and set in a cool, dry corner of cellar until fruit is wanted for use. I have eaten lovely Jonathans kept in this way in August."

Storing Celery.

Last fall we hardly knew what to do with our celery. We had no cellar to store it in, and no place for boxes to stand filled with sand and the celery in them, so we tried an experiment. We left the celery in the ground where it was growing, took pieces of four by four of the required length and put up rafters like you would to build an old-fashioned earth roothouse. We then took boards and nailed them on lengthwise, from the peak down to the ground, then covered the boards with six or eight inches of straw, then four inches of earth. Before winter set in we put on about a foot more of earth. One end we left open and made double doors for it, with the space of about two and a half feet between; filled the space with straw. The celery bleached lovely. We had it to use on the table all winter; just dug a bunch whenever we wanted to use it. It never froze in the celery-house all winter, but often had the celery leaves frozen before they came to the kitchen. Some would think it would get musty, but it did not. A tile or two put in the top for ventilation would probably be an improvement.

If you have never tried keeping celery in this way, try it; you will be more than pleased with its fine nutty flavor and its crispness. Get some of the boys to fix the house. If you live on the farm you can find enough lumber lying around to build the house. The variety we stored was Giant Pascal. This year we are trying White Plume and Golden Self-bleaching. We were using the last on the table when I planted my seed in February for this summer.

Norfolk Co., Ont.

Storing Vegetables for Winter.

The cellar of the average farmhouse can be made a suitable storage for vegetables so as to save the vegetables and not render the house unhealthy. What is needed is proper ventilation, and a division of the cellar into apartments suitable for the vegetables to be stored. Vegetables that grow on vines, such as pumpkins and squash, require a dry atmosphere at a temperature just above the freezing point. While, on the other hand, all roots such as potatoes, turnips, beets, etc., can be kept fresh all winter by packing in boxes, barrels or bins, and covered with dry earth or sand. The old custom of pitting vegetables, before people had good cellars, was an ideal method of preserving the vegetables in fresh, firm condition, so that the more nearly we follow the conditions of the pit system, the better results are we likely to secure. It is of first importance not to put in any but sound, whole vegetables, and in dry condition. Potatoes keep well without a sand covering, if kept from the light on a moist earth or cement floor. Either bins, boxes or barrels will serve as storages, if maintained be-

tween 32 and 40 degrees Fahr. If the temperature gets above 40, the potatoes are liable to decay or sprout, and if the temperature falls below 32 the tubers will freeze. Such vegetables as carrots, beets, parsnips, etc., should be covered lightly with dry sand or earth, which should be shaken down between the roots. Cabbages require different treatment, and perhaps the pit system is most popular. Select a dry place in the ground where water is not liable to stand, dig a trench wide enough to admit two heads, and as long as is needed and just deep enough so that the roots only are above ground. Then take straw and pack in closely around the heads, after which cover with dirt. If the pit becomes well covered with snow before the very hard freezing occurs, no other covering is necessary, otherwise a coating of stable manure should be applied to keep out the frost. One objection to pitting cabbages is that they are not easily gotten at during the winter season as they are wanted for use. Another plan is to remove only the largest leaves and tie or nail them head downwards to poles fastened across inside a large drygoods box or cupboard. The box can be kept in the vegetable cellar, and will answer as a shelf or table for preserved fruit, pickles, etc. The storing of vegetables on the farm is worthy of consideration, and we would be glad to hear from readers satisfactory plans of storing vegetables and fruits in order to preserve them in fine fresh condition throughout the winter season.

Some November Work in the Flower Garden.

After the sharp, killing frosts of late October, the lover of flowers finds more of sadness than of joy in his garden. Plants that he watched and tended during the early summer, and which rewarded him with graceful foliage or lovely blossoms, are now limp and frozen, with all their beauty gone, or remain as leafless stems and twigs. The gorgeous colors of autumn have departed with the falling of the leaves, and little remains to delight the eye where a few weeks ago all was bright with varied colors and fragrance filled the air. But it will not do to wander about the garden and grieve over the charms that are gone; there is much to be done, and little time remains before the snow and ice of winter put a stop to outdoor work.

First of all, there should be a general cleaning up. Weeds, rubbish, dead stalks, withered annuals, should be gathered up and burned and the resulting ashes buried wherever convenient in the beds, for they are an excellent fertilizer that should not be wasted. But the main object is to destroy by fire numerous cutworms and other noxious insects that pass the winter in the egg, or some other stage, under the shelter of such things as these. Fallen leaves that are not required for other purposes should be similarly dealt with, or they may be packed into a hole in the ground or piled in a compact heap and covered with earth, in order to form a rich leaf-mould that will be very useful a year or two later.

Roses.—Most of the favorite varieties require some protection during the winter and early spring, not so much against the cold as against the alternate thawing and freezing caused by bright sunny days and frosty nights. It is a good plan to mound up the earth over the roots and up the stem for a short distance (remembering always to level it down again in the spring), and then to cover the whole plant with a wrapping of straw or matting securely tied; in default of these, old sacking filled loosely with leaves will answer the purpose. Young bushes and climbers may be laid down on the ground and covered with straw, which should be kept from blowing away by means of bits of board or light sticks. Stiff bushes that are not too large may be covered with a keg or barrel, without head or bottom, filled loosely with straw or coarse leaves, and with a few holes bored in the sides to let the air through. The packing must not be tight, otherwise damp and mould will ruin the plant. The object, we may repeat, is not to keep the rose bush warm, but to protect it against changes of temperature.

Other tender shrubs may be treated in the same manner, and climbers, such as clematis and honeysuckle, when not too big, may be laid down, after pruning well, and covered lightly with straw or leaves. The latter should also be protected from the dripping eaves of snow-covered roofs, that on bright days will soon envelope them in ice.

Bulbs.—It is almost too late to speak of bulbs, as most kinds should have been planted last month, whether in pots for the house or in the outdoor beds. Some kinds of lilies, however, which mature late, are only now ready to put out. The tulip and hyacinth beds, and in fact the flower beds in general, should be lightly covered with litter. Well-rotted cow manure is probably the best, but leaves may be employed in default of a better material, the prunings of trees or shrubs being laid over to keep them from blowing away. The covering should be removed from tulip beds very early in the spring, otherwise there will grow through the material long spindly stalks that break easily and are susceptible to frost. Where there are no bulbs for spring flowering, the beds may be covered for some inches in depth with manure, which should be forked in next spring.

Many bulbous plants will not endure the severe cold of winter and must be taken up in the fall. The gladioli, dahlias, cannas, caladiums, belong to

this class, and are often difficult to manage in our furnace-heated dwellings. They must not be allowed to freeze, and they must not be in a warm place or in a damp one. When taken up they should be allowed to get perfectly dry first, and then they may be packed in dry sand and kept in a cool, dry place.

Geraniums.—One is often grieved at having to leave a splendidly-grown geranium out in the garden and see it destroyed by the frost simply because it is too big to take into the house. It is possible, however, to carry over to next year some of one's favorite plants. They should be well cut back (probably the frost has already done that), planted in a box full of sand and kept in a cool, dark cellar all winter; some, if not all, will grow all right when planted out in the spring. Another method is to shake the earth from the roots and hang them head downwards, without pruning, from the ceiling of a cellar or the roof of a roothouse. These methods are not invariably successful, so much depends upon temperature and the degree of humidity, but they involve little trouble and are well worth trying. Even one plant saved is a delight the following year from its size and copious flowering.

No lover of flowers can be content with outdoor gardening alone, especially in this country where it can only be enjoyed for half the year. Few can afford the luxury of a greenhouse, but every one can grow some plants in his windows and some bulbs to flower in the winter. These are a daily delight and interest and add to the healthfulness of a house as well as to the pleasures of the family. Their cultivation and care cannot, however, be entered into here, but may be considered on another occasion.

REV. C. J. S. BETHUNE.

Middlesex Co., Ont.

QUESTIONS AND ANSWERS.

[In order to make this department as useful as possible, parties enclosing stamped envelopes will receive answers by mail, in cases where early replies appear to us advisable; all enquiries, when of general interest, will be published in next succeeding issue, if received at this office in sufficient time. Enquirers must in all cases attach their name and address in full, though not necessarily for publication.]

Veterinary.

ABORTION IN COWS.

SUBSCRIBER, Huron Co., Ont.:—"What are the symptoms of contagious abortion, and what the remedy, if it exists in a herd? I have a thoroughbred Durham bull. In the early part of the season he seemed to be a pretty certain stock-getter, very few cows returning, but lately quite a number are returning at from two to three months after last service. The bull is to all appearances healthy and hearty, and so are the cows."

[The symptoms of abortion in the contagious form are that at from the fourth to seventh month of pregnancy they begin to show indications of approaching parturition, but the indications as a rule only appear a few days or weeks before delivery, the udder enlarging slightly and the vagina swelling as when nearing the close of the ordinary period of gestation, and the cows, though apparently healthy and thrifty, lose their calves and go on thriving as though nothing unusual had happened them. In some cases when abortion occurs about the seventh month, the placenta is retained and should be removed by hand, intact, if possible, and burned, together with any litter around at the time, and the vulva, tail and other hind parts of the cow washed daily for a few weeks with a weak solution of carbolic acid or some other disinfectant. It will, of course, be safer if in addition to this the aborting cow is isolated or at least kept separate from pregnant cows. Cows that have aborted should not in any case be bred again for three or four months, or until the uterus is in a clean and healthy condition, as otherwise they will be liable to repeat the trouble, and besides there is danger that the service bull may convey the infection to other cows with which he may be coupled. From the fact that the cows of our correspondent have returned in two or three months, we should hope the trouble is not contagious abortion, but as fall calves are preferable to those coming in summer, it may be wise to cease breeding the cows for a couple of months and count on having them come in fresh next fall.]

Miscellaneous.

LEG WEAKNESS IN DUCKS.

MACKIE BROS., N. Westminster, B. C.:—"We have had a lot of our ducks die. They lost all power in their legs, and could not move. What was the trouble? Kindly give us treatment for same."

[Leg weakness in ducks is frequently caused by a lack of grit in the ducks' food. Where ducks are being grown, it is always best to mix in the food some grit—either gravel or, better, mica crystal, in the proportion of about a large handful to a peck of food. This has always prevented leg weakness, and where coupled with a fair amount of exercise, will usually cure the trouble. If ducks are too weak to walk at all, place whole grain in a trough filled with water to depth of about eight or ten inches, and induce the birds to exercise in this. This is only required in very rare cases.

W. R. GRAHAM.

O. A. C., Guelph, Ont.]