

it is time they were carefully gathered and placed under the most favorable conditions for holding in check the ripening process, and generally speaking, this should be done much earlier than is the usual custom. "Place them in large heaps, or in bins in the cellar, to sweat," we are told. Here again I must differ. Do our sage advisers really suppose that apples sweat as does a horse? That the moisture of the interior actually oozes through the skin of the apple? If so, they must be related to those people who think the water pitcher sweats in the hot days of summer. No. The pile of apples heat, and the moisture of the heated air of the interior of the heap, coming in contact with the cooler apples of the outside, is condensed and deposited upon the surface. All this heating hastens ripening, the very thing to be avoided.

"Put them on shelves in the cellar," says another, "so you can see and remove decayed specimens." Yes, and plenty of them you will have to remove in that case. For if the air is warm and humid, the progress of ripening and subsequent decay will continue, and if dry, the insensible evaporation will gradually result in shriveled, leathery specimens. The plan is wrong. Two things are essential to success in this matter of keeping apples; the first is a low temperature, as evenly sustained as possible. Apples do not freeze very easily, and if barrelled the thermometer might safely register for the most part as low as 32° Fahr. If one has a fruit room, or cellar, in which a low temperature can be maintained in the autumn by opening the windows on cool nights, and closing them during the warm days, then the apples may at once be placed there after picking and assorting. Otherwise, some cool situation outside is best, as for instance the north side of a barn, until winter compels their removal to the cellar.

The other essential is the exclusion of the air, the oxygen of which is an important factor in the progress of decay, and besides it bears about tiny organisms which generate the same. The open shelves, therefore, are to be condemned, and instead close barrels should be used. The more perfectly the air is excluded, the more complete will be the success attained, provided the temperature is kept low and other things favorable. The principle explains the success obtained by various experimenters, some of whom have packed their apples in barrels between layers of dry maple leaves, some in fine, dry sawdust; fine, dry sand, or submerged in water. And I would advise those wishing to preserve fruits beyond their usual season, to avail themselves of these hints.

I need make no special reference to pears, for the same remarks which apply to apples, equally apply to them.

The keeping of grapes during the winter has attracted especial attention since such beautifully preserved bunches of Hartford Prolific, Salem, Vergennes, Catawbas have been shown at the February meetings of our Association, and especially since such fine samples of Niagara were shown at our meeting at Picton last July. The same principles described above, apply equally to them, viz.:—A cool room, and exclusion of air. Some indeed have preserved such varieties as Wilder, Agawam and Salem, until May, without the aid of any packing material; simply regarding the usual precautions of gathering them on a dry day, allowing them to stand three or four days, assorting them into small

baskets and hanging these up in a cool, dry cellar. Others are successful by packing them in boxes and burying them in the earth; but probably the best success has been attained by packing in sawdust. Care must be taken to use only well-dried, fine hardwood sawdust, and then to pack in jars, or casks, which can be tightly closed up. Layers of dust, and of grapes, are put in alternately, the package sealed or tightly closed, and placed in a cool, dry cellar. The result will then be in most instances satisfactory, providing the suitable varieties are used. The following are few varieties that may be packed for winter to be opened for use in the order given:—(1) Lady Washington, Concord, Delaware, (2) Duchess, Barry, Massicot, Agawam, (3) Salem, Vergennes, (4) Wilder.

#### A Place to Winter Plants.

BY WALDO F. BROWN.

All of the women—and some men—like flowers, and they regret when the nice geraniums and other bloomers, which would blossom the second year if cared for, but which will not endure much frost, must be left out in the cold to perish. There are many farm houses which cannot conveniently be kept warm enough to carry plants through the winter, and others where a large family and small rooms make it very impracticable to try to keep them. For such cases I recommend the plan I have used for ten years: Our dining-room is over the cellar, and has a south window. Immediately under this window I made an excavation 4½ ft. wide, 9 ft. long and as deep as the cellar lacking two feet. The cellar window was taken out and the space enlarged so that a small door was hung, which enables us to enter our pit from the cellar without disturbing the sash. Our pit is boarded up, but if making another I would lay a brick wall, as the boards rot and must be renewed in a few years. We use three sash to cover it, and the upper end is placed against the house as high as possible and not interfere with the dining-room window. To make this pit frostproof we place a frame of inch boards 2 ft. distant from it on all the sides, except next to the house, and each fall we bring a load of fresh sawdust and fill this space. Cold nights an old carpet is spread over the glass, and whenever mercury is likely to go to zero, or below, we set a common kerosene lamp in the pit. For several years we kept an old iron kettle in it, and on cold nights would carry down a peck or more of live coals just before going to bed. This was objectionable, as the coals not only gave off gas, and a dust from the ashes settled on the plants, but the heat was irregular; for when first put in the coals would raise the temperature too high, and then before morning they would die, and in very cold weather mercury by morning would be near the freezing point.

The lamp will keep a uniform temperature, and for a pit the size of mine (4½ by 9 ft.), a single lamp will suffice, even with a zero temperature outside. We have had several nights with mercury from 8 to 14 degrees below zero, and then we put in a second lamp. We do not try to keep flowers blooming during the coldest weather, but in February and March they can be pushed forward, and thus daisies, pansies, violets, hyacinths and other hardy bloomers are made to contribute flowers in abundance. It is well occasionally to set a kettle of boiling water in the pit to render the air moist by the steam it gives off. In a pit of this size we do not wish to winter many large plants, and so we take slips of gera-

nium and other large plants, and late in the season pot them in 4-inch pots. Our plan of starting new geraniums from slips is very simple. Any time during the latter part of July or in August, when the land is moist, break off a branch and stick it down under the north side of the plant, where it will be well shaded, and press the earth firmly about it, and it will at once strike root. It is much better to break off a slip than to cut it; break at a fork by splitting it down; it will not be bruised, and will take a little from the main stem. Often in a wind, or by some accident, a plant will be broken, and it can at once be utilized for slips. As spring approaches we find the pit a very convenient place to start tomatoes, flowers and other plants, which can be sown in shallow boxes. In making a pit of this kind give a rather steep pitch to your sash, for the lower the front the more sunshine you get into the pit, and the higher the rear the more shelves there will be room for. After April 1st the sash can be taken off during a part of the day, and this will give a better chance to water the plants. I think a lamp might be constructed with a radiator, so that a single lamp would raise the temperature of a greenhouse of twice the size of my pit high enough to keep plants through the coldest winter.

#### Promising New Cherries.

Professor Budd, of the Experimental Station of the Iowa Agricultural College, at Ames, Iowa, who is making tests of a great variety of North-east Europe and Russian fruits, reports the following varieties of cherries as promising for Iowa.

This is something of interest to the whole western and northwestern country, where the common varieties of cherries usually fail, and probably among them will be found several that will stand the test of our severe climate, as they appear to have done at the Experiment Station.

The varieties that do well in Iowa, will doubtless prove of value in almost any part of the Dominion. The climate of Iowa is very severe and trying at times.

#### VARIETIES FOR CENTRAL AND NORTH IOWA.

**Spate Amarelle.**—Our trees from five to six feet in height were bending with the weight of the fruit this season. Fruit medium to large, color dark purple when ripe.

**Schattan Amarelle, or Shadow Morello.**—The name comes from the mirror-like reflection from the shining skin. Much like the above variety in size, shape, quality and season of fruit.

**Gros Lang Loth.**—Fruit large, roundish, truncate at stem end, nearly black when ripe. Juice colored. Pleasant sub-acid flavor when ripe. Season of English Morello.

**Kings Amarelle.**—Fruit round; pit very small. Ripens with Early Richmond.

**Amarelle Bouquet.**—Fruit much like Richmond in season and quality, but with more grape sugar.

**Cerise De Ostheim.**—It fruits early and is hardier in tree than what is known as Minnesota Ostheim, and bears larger, better and earlier fruit. Tender, juicy and when ripe pleasantly sub-acid.

**Orel.**—Fruit larger than Montmorency, nearly black when ripe, and very mildly sub-acid in flavor.

**Shubianca (6m).**—Fruit smaller and later than the above; black, and excellent in quality.

**23 Orel.**—Fruit much like Richmond in color, season and quality.

**Doppelte Natte.**—Fruit large for its class; skin dark brown or brownish black. Flesh very