

to the light, *S. canariense*, *S. Donckelaari*, *S. palma*, *S. tabulæforme*, and *S. velutinum*, have massive leaves, and are remarkably striking in appearance.

The Yuccas are all very bold and handsome, the most valuable for growing under glass being *Y. albo-spica*, *Y. aloifolia*, *Y. aloifolia variegata*, *Y. filamentosa variegata*, *Y. filifera*.

It is necessary to state that in commencing the culture of succulent plants a considerable amount of patience is necessary. They are all of slow growth, and as it will be some years before the house will be well furnished, unless more are purchased than is really necessary, a few other subjects which consort well with them should be added. One of the most useful of these is *Agapanthus umbellatus*, which, whether in and out of flower, is very ornamental. Then there are the free-growing Cannas, of which at least twelve varieties should be grown, for they require but little attention, provided the pots are stood in saucers of water. A few small-growing Palms, such as *Chamærops humilis*, *C. excelsa*, and *S. Fortunei* may also be added with advantage.

All the succulents thrive amazingly in a compost consisting of turfy loam, with which liberal quantities of small crocks, sand, and old bricks broken up very small, have been incorporated. The plants will not require repotting more frequently than once every two or three years, and then an experienced man from a nursery may be obtained, at a trifling expense, to do the work. It is necessary to have the pots properly drained, and to water carefully. During the summer season the soil should be kept in a nice moist condition, but during the winter it will require to be kept rather dry.

CAMELLIAS IN AUTUMN AND WINTER.

BY JAMES CALVERT.



BELIEVING in the value of a word in season, I have ventured to contribute a few notes on the management of Camellias during the autumn and winter. In doing so, I have alluded as briefly as possible to the several points demanding most attention at the hands of the cultivator.

In commencing, I would observe that those who are so favourably situated as not to be obliged to place their plants out in the open air during summer, will have nothing more than the ordinary routine of watering and air-giving to think of in connection with them at this season of the year. But with those who have not the desired convenience to give them summer quarters under glass, the case is very different, as, being under the necessity of placing them in some sheltered place out of doors, the time is now come when they must be thinking of their removal to more secure and favourable quarters. As this part of the management of plants so treated

requires some care, it will, I think, be advisable to state briefly the points that should be attended to in the work of housing them.

In the first place, unless the pots have stood very evenly upon some smooth hard surface, it is more than probable that some worms have collected in them, and, in every case where there is a doubt about it, means should be adopted to free the soil in the pots of these intruders. The simplest, and therefore the best means of doing this is to dissolve a peck of fresh lime in about twelve gallons of water. Let this stand until the water becomes clear, when it may be used with perfect safety; each plant should be thoroughly moistened with this clear lime-water, which will soon bring the worms to the surface, when, as they come up, they must be removed.

The next point of importance in connection with housing these plants for the winter is to see that they are not taken into the house with their roots suffering for the want of water. It sometimes happens in dry autumns, when the plants have been standing in sheltered situations, that they become very dry at the roots. In this case ordinary waterings are not sufficient to thoroughly moisten the whole ball of earth, and this is especially the case with large plants standing in tubs and large pots. Many persons seem to forget that when such plants are thickly studded with branches and luxuriant leaves that extend far over the dimensions of the pots or tubs, that an ordinary shower of rain does not find its way to the roots of the plants, on account of the leaves and branches which extend beyond the pot, and carry it over the point to which the tub or pot extends.

Many times I have seen plants suffering for the want of water under similar circumstances, when those whose duty it was to see that they were properly attended to, thought that sufficient rain had fallen to well water them. Indeed, I cannot too strongly urge upon the cultivator the importance of giving proper attention to this matter, when taking his plants into the house for the winter. As to the time of attending to it, it does not matter whether it is done immediately before or after they are taken indoors, but they ought not to be allowed to go unattended to many days after they are put in their winter quarters. With very large plants in tubs or large pots, more care is necessary, as the watering will have to be repeated for two or three successive days, if they are very dry. But with smaller plants the work may be done at once, by placing the pot in a tub of water, and allowing it to remain there two or three minutes.

The next important matter is to see that they are not subjected to any great change, or it may be the means of causing them to cast their buds. It would be bad management, directly they are taken into the house, to keep them shut up close and warm; there should be a current of air kept up through the house night and day for at least a week. The next week the house should be open all the time there is daylight, as any coddling at this stage will be liable to prove an injury to the plants.

Every *Camellia*, whether in the north or south of England, should be housed by the end of September, as the drenching rains

we sometimes have about that time are very hurtful to them, if accompanied with a low temperature; and when we get October here, we are never secure from a few degrees of frost. The after management will be to give water liberally to those most forward in blooming, to assist them in swelling their buds; those which do not show an inclination to flower until the spring, must have water more sparingly. Keep the syringe or garden-engine plied freely amongst those that are not in flower at least twice a-week, as a fine glossy foliage is not only more healthy, but more sightly than leaves covered with smut and dirt.

WINTER-FLOWERING CARNATIONS.

BY THOMAS TRUSSLER, EDMONTON, N.



THE tree or perpetual flowering Carnations are rather more difficult to manage than a few other things, but their flowers are so useful during the winter season, that a few should be grown wherever proper accommodation can be provided for them.

For their successful cultivation, a house, the temperature of which is intermediate between that of the greenhouse and plant-stove, is necessary. Sufficient warmth must be afforded them to maintain a steady growth, but they do well in company with the Cyclamens and Bouvardias. In the greenhouse the warmth is not sufficient to maintain a steady growth, and unless they are kept in a progressive state, it will be of little use to expect many flowers, and, moreover, a danger will exist of their being attacked with mildew during the early part of the winter. The plants from which the flowers are to be obtained should be strong and well-rooted by the time they are started, and, if not already done, the strongest plants in five-inch pots should be at once transferred to pots two sizes larger, and placed in a warm sheltered position. Strong plants in three-inch pots may also be repotted. If this is done at once, they will be in good condition for producing an abundance of flowers. They succeed most satisfactorily in mellow turfy loam, broken up moderately, and then incorporated with a liberal proportion of sand and a moderate quantity of decayed manure. It is essential to have the pots well drained, to prevent the soil becoming sour, and the roots injured in consequence.

An open position out-of-doors, with the roots plunged in coal-ashes or some light material, is preferable for the summer quarters; and they should be taken indoors early in the autumn, so as not to expose them too freely to the autumnal rains. When first taken indoors, a light and airy position is the most desirable, and the assistance of artificial heat will not be necessary, until the second or third week in October. After this period the temperature should be maintained at 60° by day and 55° by night.