

## GARDEN CULTURE OF TULIPS . . .

When cutting the flower at least the bottom two leaves should be left on the plant, otherwise the loss of leaves may prevent new bulbs from growing, though, as explained elsewhere, removal of even the top leaf and flower stem reduces the size and quality of the new bulb. The best plan is to plant some spare flowering-sized bulbs in the vegetable garden and grow them specially for cut flowers. These can then be cut down to the ground with magnificent long stems, and the bulbs, having served their purpose, can be ignored.

Some varieties suffer from the defect of having rather floppy stems, especially if they are out of water for a number of hours from the time they are cut until they are put into water. The best way to stiffen tulip stems is to shorten them by half an inch, lay all the stems on a sheet of paper with the heads just clear of one edge, then roll them into a tight bundle which should be put in water up to the flowers for an hour or two. As the stems take up water they will stiffen and when the bundle is unrolled the flowers will stand well in a vase.

### Species and Varieties

Thousands of different varieties of tulips have been raised, though there are only a few hundreds at present in general cultivation. For convenience the varieties are arranged in groups which are classified mainly by their time of flowering and shape and colour of flowers.

Perhaps the most important event in tulip history has been the development of the Darwin varieties, introduced by Messrs. Krelage, of Haarlem, Holland. These varieties are outstanding for their length of stem, good colour, and the fine form and substance of the flowers.

Among the most popular varieties at present grown are:—

#### Early Flowering (shorter-stemmed than Darwins)

Keiserskroon: Rich scarlet and yellow; 14in.  
Gen. de Wet: Orange-scarlet, scented; 14in.  
Cottage Maid: Rosy white; 12in.  
Vuurbaak: Double scarlet; 12in.

#### Breeders (self coloured but very subject to breaking)

Bronze Queen: Soft buff; 28in.  
Cardinal Manning: Red and copper; 30in.

#### Darwin (tall varieties for bedding and cutting)

Allard Pierson: Deep crimson; 27in.  
Clara Butt: Pink; 24in.  
Pride of Haarlem: Cherry, scented; 30in.  
Rev. H. Ewbank: Lilac; 25in.  
The Sultan: Dark maroon; 27in.  
William Pitt: Dark scarlet; 24in.  
William Copeland: Lavender; 27in.

#### Cottage (shorter than Darwins and specially useful in windy gardens)

Caledonia: Orange scarlet, scented; 20in.

Inglescombe Yellow: Yellow; 22in.  
Inglescombe Pink: Pink; 24in.

#### Parrot (flowers with fantastically cut and coloured petals)

Varieties of tulips vary in height, though there is remarkably little variation in the height of flowers from bulbs of the same variety. When planting tulips in beds it is best to keep the different varieties separate, as varieties flowering at different heights in the same bed give it a ragged appearance. The heights given above are only approximate and indicate the normal differences between the common varieties rather than the actual height in any particular year.

A number of the tulip species are also well worth growing, though they are not as showy as the garden varieties. Among the good species are:—

*Tulipa clusiana*: White tinged with red.

*T. Eichleri*: Scarlet, edged with yellow.

*T. Greigii*: Scarlet.

*T. Kaufmanniana*: Cream and yellow.

### Raising New Varieties

Plants produced by vegetative propagation are normally exactly like their parents. This is both the strength and weakness of vegetative propagation—the weakness because new varieties cannot be raised in this way except for the very occasional and fortuitous appearance of a “bud sport” or mutation. A few good varieties of tulips have, in fact, arisen as sports from other varieties, but the majority have been raised from seed.

As all garden varieties of tulips are hybrids, they will not come true from seeds, and seeds from a single pod will produce many different types of plants. It is not very likely, however, that seed saved haphazard will give rise to worthwhile new varieties, which are more likely to be produced as the result of deliberate breeding where varieties with selected characters are bred together with some special object in mind.

The plant to be used as the female parent should be prepared by opening the flower bud before it shows colour, removing all the anthers (which should not, by then, be dusty with pollen), and enclosing the flower in a paper bag to await the time for pollination. This is indicated by a sticky, moist appearance developing on the stigma (see diagram on page 598). Meanwhile the flower to be used as a supplier of pollen should also have been bagged to prevent insects bringing to it pollen of other flowers.

When the stigmas are sticky (receptive) pollen should be transferred from the anthers of the male parent to the stigma with a camel-hair brush, which should be sterilised between each cross by dipping it into methylated spirits. Immediately after the cross is made the stigma should be covered with a little cottonwool and then the whole flower surrounded

with a paper bag to keep it dry and to prevent spores of tulip fire blowing on to the developing pod.

It is best to sow seeds as soon as they are ripe in pots of good seed-sowing compost, and at the end of the growing season the tiny bulbs which are produced by means of droppers an inch or two deeper in the soil than the seed was sown may be lifted.

Thereafter the bulbs should be planted out and grown normally, and should grow larger bulbs each year until bulbs of flowering size, with four or five scale leaves, are finally produced in the fourth or fifth year.

Gardeners who are interested in raising tulips from seed will find much valuable information in Sir Daniel Hall's “The Book of the Tulip.”

### Tulips as Pot Plants

Tulips make fine pot plants if carefully grown and can provide a prolonged display of colour if planted in succession. Bulbs can be planted in ordinary flower pots filled with a good potting compost such as the John Innes mixture, prepared as described in the July, 1947, issue of the “Journal.” Alternatively, if the bulbs are to be grown in ornamental bowls which are not provided with drainage holes, they should be potted in specially-prepared bulb fibre, sold by seedsmen, as soil goes sour and roots rot if the receptacle is not drained and is accidentally over-watered. Bulb fibres are made from a rough, fibrous grade of peat to which crushed charcoal and oyster shell are added.

Plant the bulbs with their noses just level with the surface, pressing the soil or fibre tightly between them and leaving the final surface about half an inch below the top of the pot or bowl to allow room for watering. Then stand the pots, or sink them in the soil to the rims, in the coolest, shadiest place available, water them thoroughly, and cover with old sacks or three inches of sand, soil, or well-weathered cinders to keep the pots cool, to reduce drying out, and also to prevent the bulbs from lifting themselves out of the soil as their roots grow. A temperature of 48 degrees F. is the ideal for the healthy rooting of tulips.

The earliest varieties should be potted up in February, followed at intervals by others, including the Darwin varieties, which grow well in pots.

After six to eight weeks in the cool temperature the pots should be lifted and cleaned up, the surface of the soil roughened by scratching it with a nail, and the pots brought into the house, where they should be stood for the first few weeks in the coolest window available. Use very little water at this stage, as over-watering will cause the leaves to grow too big and spoil the balance of the plants when in flower.

As soon as the flower buds can be seen the bulbs should be moved into a warmer room to flower and water can be given more freely. When the flowers fade the bulbs should not be thrown away, but the bowls or pots should be turned out and the mass of soil and bulbs planted intact in the garden.