

If the cuttings have been rooted early in the season, it is better to pot them early the same year, but if rooted later, then potting is best deferred until the early spring.

Although our experience is as yet limited, I feel sure that this could be a first class way of raising birch, as good growth has been obtained in the first year. Our plants made 3-4 ft. of growth in the first year from cuttings taken on the 18th August and 1st September, but quite obviously, if earlier cuttings are taken, and these established in their pots before winter, better growth the year after would result.

### **FRENCH LILACS UNDER MIST**

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I believe that the propagation of French Lilacs under mist is a method that has been neglected. It is true that their propagation comes at an extremely busy time of the year, but the results can justify the trouble taken.

Timing of the propagation and the condition of the stock plants are most important, but the timing is the most important factor.

Usually the best time is from the middle to the end of April in this part of the country, and a very close watch must be kept on the stock plants. If the cuttings are taken too early, damping off in the mist will be excessive. The shoots must be taken at a stage when there are one or two pairs of well developed leaves, and when the shoot is making active extension growth. It is important that the cuttings are taken before the terminal bud is visible, and there is only a period of 7 to 10 days when hybrid lilac cuttings can be successfully taken. If taken after this period, rooting is slow and erratic.

Particularly with this very soft type of cutting, great care has to be taken to get the cuttings into the midst while still turgid. Short nodal cuttings of about 3-4 ins. are taken, and inserted in pure grit. In a trial, we found that a high percentage of rooting could be obtained without the use of hormones, plants being ready for potting in 4 weeks after insertion. Using IBA at 1000ppm as a 5 sec. dip, rooting was speeded up slightly, but not significantly. Careful weaning, is of course important.

We have found that it is best to leave the rooted cuttings in their pots until the following spring, when they can be planted out.

Unfortunately, little or no top growth is made in the year the cuttings are taken, and I am wondering if this can be rectified by the use of a chemical such as gibberellic acid. The growth that occurs the year after planting varies according to the variety, and good fibrous root systems are formed.

The plants shown were propagated on the 13th April, 1967, the heights varying between 2 ft. and 3 ft, with a small proportion between 1 ft. and 2 ft., and it is probably best if the plants are cut back and grown on for another year. I am confident that it is possible to produce 100% saleable plants in the year after taking the cuttings.

C. E. SALTER: I have found that a safe way to assess the correct time to take Lilac cuttings is to estimate three weeks before they come into flower.

DAVID CLARK: Have you had any experience of the resultant growth of these lilacs from cuttings? We find that they are slow to get away on their own roots.

ROBERT HARES: No, we have not been doing this long enough to give a considered opinion of their growth after planting out.

H. J. WELCH: I would confirm that I have found them slow to get away but ultimately they make excellent plants.

### **BIRCH GRAFTING**

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The stocks are lifted from the seed bed in the fall of the second year. The sizes most suitable for grafting stocks are between 3 - 5 mm.

#### *Potting*

Potting should be done using a 3.1/2 ins. clay pot which should have previously been crocked using a 3/4 ins. straight gravel. The compost should be a fairly light open mix, we at Hillier's use 7 peat, 4 loam, and 2 parts coarse potting grit to which has been added 4 oz. of John Innes base manure to each bushel of compost. No ramming is required so long as a few taps on the bench and the use of the thumbs are employed when potting.

After potting they should be stood down on a well drained open plunge. A covering of leaves or peat should be given to protect the clay pots from frost damage, also the size of the plunge should be banked-up either with sand or ashes, this not only protects the outside rows of pots from frost but also helps to steady them when personnel and trucks go up and down the paths of the plunges.

#### *Spraying*

Frequent spraying with a copper fungicide should be carried out during the growing season in order to keep in check the rust fungus (*Melamporidium betulinum*).

Malathion can be incorporated into the copper mixture to eliminate any aphids which might be present.