PRUNING AND PROPAGATING HYDRANGEAS . . .

houses, as it may often be found that the soil under the bushes is bone dry though it may be quite moist in other parts of the garden. The condition of the soil near the bushes should occasionally be investigated with a trowel to see whether it is quite moist to a depth of 9 or 10in. If not, a thorough soaking with water will put new life into the plants.

Summer Pruning

Few flowering shrubs will withstand neglect as well as hydrangeas, which will flower regularly and profusely without being pruned at all, which is not surprising as pruning, in any case, is an unnatural operation. Under this system, or lack of system, however, the bushes become larger, the flower stalks shorter and more bent, and the bush more leggy. At the other extreme, bushes are sometimes slaughtered annually as though they were bush roses, yet somehow recover and flower, though unduly late in the season.

The most desirable type of hydrangea is a neat, well-clothed bush, covered throughout the summer and autumn with large trusses of flowers borne on strong, straight stems suitable for cutting. This habit is the result of careful and intelligent pruning.

Each hydrangea branch bears a series of leaves arranged in opposite pairs. One bud is produced where each leaf joins the stem (axillary buds), and an additional bud develops



Pruning hydrangeas. Where a strong new shoot comes away from near the base of the bush, as at A, the flowering shoot should be cut back to near the new shoot as soon as the flowers fade. Branches such as B should be cut back to the lowest new shoot. Where there is no new shoot on a branch, as in C, the branch should be shortened by removing the flower head and three or four leaves.

at the tip of each shoot (terminal buds). The buds are of two kinds, flower buds and wood buds. The flower buds are larger and rounder than wood buds, although this distinction is not always clear, as there is a considerable gradation of size. The bud at the tip of each branch is usually a flower bud, as is one or more of the buds produced in the leaf axils nearest the tip of each branch. The remainder of the buds placed lower on the stem are all wood buds.

When the buds grow in spring, each flower bud develops into a short leafy shoot at the end of which is a truss of flowers. The wood buds develop into leafy shoots which normally grow into long branches which do not flower that season, but on which the next year's flower buds develop in the autumn.

Thus any pruning done in the winter will inevitably reduce the following season's flowers, as the tip flower bud will, in every case, be removed when a shoot is cut off, and the axillary flower buds will also be removed if more than a few inches is cut off the end of any shoot. The best treatment where pruning is necessary is therefore to cut back the bushes in the summer to allow time after pruning for flower buds to develop on the shoots which remain.

Immediately the main batch of flowers is over, in late summer, each bush should be carefully examined. First, any weakly shoots should be cut out altogether. Next, if there are plenty of strong new shoots several feet long coming away from the base of the bush or the main branches, all the shoots which have flowered should be cut out altogether, preferably to the base of the bush or to the lowest strong new shoot. If, on the other hand, there are few new shoots, some or all of those which have flowered should be retained, but each should be shortened by removing the flower head and three or four leaves. The new shoots should not be thinned or shortened unless they are unusually numer-

Old bushes which have been neglected are not so easy to prune because any treatment is bound to reduce the show of blossom in the first year after pruning. The best plan is to cut the branches hard back in the middle of summer, sacrificing some of the current blooms, but allowing time for new shoots to grow and form flower buds which will produce blooms next year.

Other Pruning Systems

A system sometimes practised is to prune in winter by cutting every shoot back to leave the lowest two flower buds on each. This preserves the shape of the bushes, but the loss of the terminal flower buds is a disadvantage, because the terminal and upper axillary flower buds usually produce the best trusses of flowers.

Another system which has its advocates in New Zealand, and has much to commend it, is to summer prune all new shoots by nipping out their centres when each is 6 to 12in. long. That ensures that the short new growths do not need to be pruned in winter and all the best flower buds, which develop toward the ends of the shortened shoots, are thus retained. Where necessary, growths which have flowered are cut right out in late summer when the flowers have faded, or are shortened back to the lowest new side shoot.

Cuttings Root Easily

Hydrangeas root readily from cuttings, which can be taken in the winter or, more usually, in the summer. Hardwood cuttings are taken in winter, 6 to 8in. long, trimmed off below a leaf, and inserted firmly 3in. deep in soil.

Soft-wood cuttings, which give better results, are made by taking off pieces with 2 or 3 pairs of leaves on each from the ends of new, non-flowering shoots in January, February, or March. Each cutting should be shortened to about 4in, by cutting it off cleanly just below a pair of leaves. The bottom pair of leaves should then be cut off close to the stem, and about half the leaf blade cut off each of the remaining leaves. It is important that the cuts be made cleanly, using a sharp knife or razor blade.

The cuttings should be inserted about 1in. deep in sandy, open soil in a cold frame, making sure that each cutting is firm, though pressure applied to the soil by the fingers should not be sufficient to bruise the soft stems. Water lightly with a watering can fitted with a rose, cover the cuttings with a single sheet of newspaper, and close the frame. Keep the cuttings moist by damping plants and soil regularly for a few days to prevent them from flagging, but as soon as they root the paper should be removed and the frame opened to give more air. When the cuttings are seen to be making new growth they should be removed from the frame and planted in a nursery bed until the autumn, when they can be planted out into their permanent places or left for another season to make better bushes before being planted.

Colour Manipulation

The colour of hydrangea flowers depends on a combination of factors, including the "true" colour of the variety concerned and the nature of the soil.