

Pruning Notes

A Guide to the
Treatment of
Fruit Trees and
Bushes :: and
Rambler Roses

JOHN J. NEWPORT
HOOE :: BATTLE :: SUSSEX

PRICE TWOPENCE

PRUNING NOTES

By JOHN J. NEWPORT, M.R.S.T.
First-class certificated teacher, R.H.S.

FOREWORD.

THESE "notes" have been prepared from records made during more than thirty years of observations (with experiments) in gardens and orchards. The writer hopes they may prove useful, helping to secure success with ornamental trees, fruit-trees, bushes and rambler roses.

INTRODUCTORY.

As we pass along a tree-shaded road and observe the balanced forms of pruned trees, we are impressed with the beauty resulting from skilful pruning. On the other hand, if we look into trees allowed to grow uncared for, we may note the ugliness that follows the crossing and crowding of growths, and the injury by friction of branches rubbing one another.

When we come to fruit trees we see further trouble from non-pruning and mischief and ugliness from irrational pruning. Too often, dead and diseased spurs and branches are left to injure fruit.

What principles and methods may guide and help us to profitable and pleasurable pruning of trees?

PRINCIPLES.

The first principle is to train the branches of a tree or bush to radiate from an imagined vertical central line (in a standard tree, the trunk).

The second is to prune a "leader" to such a wood bud as will probably secure growth in the right direction.

The next is to allow abundant space between branches

so that there may be room for spurs, leaves, sunlight and the gathering of the fruit.

Lastly, the lateral growths on the leaders (spurs and short branches) should be cut back for the reasons given above.

Besides the branches the roots need guidance and assistance.

Guidance is started by spacing out the roots horizontally around the bole when planting. Manuring assists by encouraging the roots to keep near the surface for food; and mulching assists by so conserving the moisture in the soil that they need not "tap" for it.

A tree depending upon a taproot makes long fruitless branches, is unable to benefit by manuring and mulching and is not stayed in the soil. A tree with its roots radiating from the bole has many "stays" to keep it steadfast during a storm.

Some trees have both tap roots and lateral roots. These are proved to depend upon their tap roots for extending their branches. If the lateral roots are cut they may not heal and develop rootlets and root-hairs. Instead they may die and rot, and the trees continue to make long growths. If the tap roots are cut the trees may become stunted in growth; may partly or wholly die. Supple tap roots may be pulled up to the horizontal position and so made useful.

Digging around trees may expose some roots to sunlight and air. Roots so exposed form leaves and are generally called "suckers." They should not be cut short, but buried in their proper positions as roots; then they will act as such.

There are other "suckers" which grow from roots below the surface and are really young trees. If not wanted, they should be uprooted.

The fork used lightly is the tool for work under trees; for if manure and mulching are on the surface, root fibres grow up to them and roots continue near the surface. A spade may not only cut away useful roots and root-fibres,

but cause tap-roots. Spade-digging around a tree in the Spring, by injuring the roots, withdraws sap from the opening buds and blooms, impoverishing them.

Instead of mulching, the soil may be frequently lightly hoed and raked over. Obviously it is unwise to crop under trees.

BRANCH PRUNING.

Trees planted properly and cared for need little pruning. The shaping of a tree should begin when it is young. Should it produce wood growth too freely, instead of cutting it back, a better way is to "lift" the tree—take it right out of the ground and re-plant it. By this method a fruiting condition is produced and less branch-pruning required.

When a tree or bush is formed, its pruning is simple and consists (generally) mainly of :—

- (1). Shortening the laterals along each leader, leaving from one to three inches. This may be done in August or September with gratifying results, or deferred to later months, to February.
- (2). Shortening each leader to leave about eight inches, with the last bud left pointing in the direction to which extension is desired. This may be done in March.
- (3). Removing branches that may be found crowding, or undesirable for any other reason.

Black Currant bushes are best treated like raspberry canes, cutting the older wood away down to the ground and leaving the young wood with sufficient room between the growths for gathering the fruit.

It is wise to treat each tree or bush according to its own individual condition, noting its buds and spurs, its internodes, the weakness or stockiness of its growths, the length grown by its leaders during a season, and every other point, and to record all observations (or the useful deductions from them).

When pruning, cut slantingly behind a bud to avoid a dying back, and slantingly across a root so that the cut surface shall be uppermost.

Branch-pruning of laterals has been proved to be done advantageously in summer and autumn—as possible without damaging fruit, especially with trees fruit-bearing at terminal buds. When this is done the work remaining for winter is the shortening of laterals which could not be done before.

Pruning done in autumn generally results in fruit buds and spurs substituting the wood removed.

Leader shortening (if necessary) is best left to late winter. Where the leaders are long, they may be shortened to one-half or one-third of their length. The fifth bud of the year's growth should be the last left, if pointing in the right direction.

ROOT PRUNING.

To reduce "sap-pressure," or "root-pressure," which causes abnormal wood growth and unfruitfulness, roots may be dealt with as follows :—

(1). A tree may be "lifted," re-planted or transplanted, that is, it may be taken out of the ground and replaced in the same spot or removed to another place.

(2). A trench may be dug around the tree within the circumference of the spread of the branches, the strong roots found in it shortened and the others re-laid, and the soil replaced firmly.

(3). One half, or one third, of the roots around a tree may be exposed one autumn, pruned, re-laid and covered firmly (with some manure added if judged advisable). The following autumn other roots may be so dealt with. By this method the whole root system of a tree may be rendered thoroughly efficient without risking the life of the tree.

Points of great importance in root-pruning are :—

- (1). The soil must be packed firm around the roots.
- (2). The soil must be maintained moist. Water must be given in dry weather (generally) and a mulching added.

In addition to the above, when re-planting, before putting the tree in its place, drive a stake into the ground

until it is firm ; tie cord on the stake ready to tie around the tree when in position ; finish the tying when the tree is firmly planted.

BARK RINGING.

Instead of root-pruning to reduce root pressure, a ring of bark one-eighth to one-quarter of an inch wide may be cut out when the sap is active, and its place plugged with clay or moist soil. This method is recommended only when root-pruning cannot be done. Partial ringing, called "notching," may be resorted to.

Effective bark ringing may be found in nature as a result of canker, soon followed by death of branch.

SOME FAILURES AND THEIR CAUSES.

The following are facts.

(1). Old trees (an apple and a pear), with tap roots and no lateral roots, died when their roots were shortened. Probably the root-hairs that had nourished them were on the parts of their roots cut away and for lack of them they died.

(2). A young apple tree had a number of roots which were all tap-roots and these were distributed around the bole when it was re-planted. The soil was made firm and watered, but it died. It was much cankered and to its diseased condition its death must be attributed.

(3). Six unfruitful woody pear trees were transplanted. Because the soil was rather boggy, they were mounded on the surface and turfed over (as required). Only one survived. Contributory causes of the loss of the five appear to have been :—A long drought, the turf utilising moisture around the roots and insufficient lateral roots.

(4). Several standard rose trees died. When examined, their roots were found to be black. They had been planted above imperviable building material and their roots had been "drowned" in undrained soil. The soil afterwards was dug deeply, the offending material removed, and fresh trees planted, which proved a success.

(5). Several half standard fruit trees transplanted into soil mixed with broken concrete, tiles and the like mixed with clay also died—drowned in water-logged ground.

SOME EXTRAORDINARY SUCCESSES.

(1). A wall pear-tree, unfruitful for many years, was root-pruned and manured. The operation was partly successful. Instead of risking its life by re-planting it, the tree was ringed, and fruit followed.

(2). A valued old half-standard apple tree occupied a site required for building. It was resolved to transplant it though it was in bloom. It was removed on a lorry. As many roots as possible were saved, it was properly staked, planted, watered and the soil mulched. It recovered splendidly. Success was due to the facts: (i) the tree was healthy and had good lateral roots. (ii) the soil was made firm around the roots. (iii) the soil was watered and afterwards mulched to conserve the moisture. (iv) the tree was securely staked.

(3). A rather young unfruitful apple tree grew very long weak branches and was replanted. It had several tap roots close together and no lateral root. The tap roots were laid as laterals. It struggled for existence, helped by copious supplies of water, survived and became the best in the garden.

(4). Two fruitless half standard apple trees whose condition and position rendered root-pruning unsuitable were ringed (one branch each). One of them produced one apple on its ringed branch and no other; the other grew sixteen apples on its ringed branch and six more on the other branches.

(5). A Bramley Seedling tree was growing too large for its owner. Its branches were much shortened and its roots pruned sectionally. The result was quite satisfactory.

A GLOSSARY.

Bole—The stem or body of a tree from which roots grow below and branches above.

Fruit-bud—Usually a plump bud, roundish, from which flowers appear, followed by fruit.

Internode—The space between a leaf on a branch and the one next to it.

Lateral—At the side of.

Lateral branches—Branches growing along a main branch (or limb).

Lateral roots—Roots growing horizontally through the soil.

Mulch—Grass cuttings, strawy or leafy manure, or like vegetable matter, spread on the ground to keep it moist.

Node—The place on a branch with a bud or leaf.

Root-fibre—A fine rootlet.

Root-hair—One of the finest root growths.

Spur—A short lateral, generally fruit-bearing.

Stunted—Very little or no addition to length of branches.

Tap-root—A root that strikes directly downward in the soil, growing vertically and tapering.

Wood-buds—Buds from which leaves and branches grow. They are usually pointed; in trees producing much unfruitful wood they may be plump, rather resembling fruit-buds. Where two or more buds exist at a node, although shaped alike, one only may be a wood bud.

PRUNING RAMBLER ROSES.

A rod (stem or cane) of a rambler rose may measure fourteen feet or more in length and be found to have the growths of several years.

These growths may be :—

- (1). The young wood, having leaves and buds only.
- (2). The previous year's wood with its blossom laterals.
- (3). Older wood with pruned laterals (or which should have been pruned),
- (4). The oldest wood, generally bare or almost so.
- (5). Laterals as Nos. 1 and 2 mixed.
- (6). Laterals as No. 1 only.

To prune, the question arises, "What length of rod is required?" and on its answer the rod may be shortened to a suitable No. 2, 5 or 6 growth. Then the laterals of Nos. 2 and 3 cut back to two buds and the blossomed parts of No. 5 cut away.

A rambler generally has several rods of various lengths. These are tied to a wooden or wire support or to nails, and the ties must be severed to allow all the rods to fall to the ground where they can be examined and pruned. To secure a succession of strong healthy rods it is advisable to cut nearly to the ground the oldest and the weakest that can be spared. The remainder should be shortened as may be required so that all the rods retained, when tied up, may produce on their one year and two year old wood a continuous show of blooms from the ground to their extremities.

Tie on the support first and then the rod to it. Strong ties are advisable on the longest rods; weak ties may suffice for short ones and laterals.

Printed at
THE WICKLIFFE PRESS
WICKLIFFE AVE.
FINCHLEY
N.3