THE VERTIRAKES

P.V.R. (Pedestrian Vertirake)
-for Golf greens, Bowling greens, Cricket pitches and Tennis courts.

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-for Golf course greens, Bowling turf, Fine lawns etc.

T.V.R. (Tractor Vertirake)
-for Golf course fairways, Municipal Parks, Sports pitches.

These three machines have been designed to remove all the thatch, thus stimulating recovery and growth of strong healthy grasses. You will find that each machine will clear the difficult, dead, matted, fibrous grass that is so often so difficult to get rid of.

We have a machine for every purpose from the small golf green to the largest Municipal playing fields. One great labour saving device we have fitted on our P.V.R. model is the very large glass fibre collecting box which saves an enormous amount of time and energy that would otherwise be wasted in sweeping up afterwards.

Start your New Year off well by writing for full information on VERTIRAKES to:

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The British Golf Greenkeeper

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Front Cover Picture

The cover illustration shows the new Cambridge Self-Propelled Sand Injector. This single-bladed machine, powered by an 18 h.p. Briggs and Stratton engine, is compact and easily transported, yet can readily achieve an output of an acre per day.
appropriate installer now... Write for details and the name of your nearest Rain to design a Toro pop-up sprinkler system for your club. Consider these benefits: Toro's pop-up sprinklers provide consistent coverage, eliminating course stops. They are automatic year round, working around water greens, tees, and fairways through the night. Day time performance is fully retracting head protects grass and disappears below ground after watering.

Sunnindale or your club."

The 18th at 5:30 am!

The British Golf Greenkeeper
ABC of tree care

A GOLF COURSE takes up a large parcel of amenity land in any community, and as such places on us a responsibility to wildlife and the environment in general. For it is not only the golfer who enjoys a well planted and tended course.

Unfortunately, on many courses the trees and shrubs are sadly neglected, and it is worthwhile to re-state the basic principles of tree and shrub care.

In common with other plants, trees and shrubs have soil preferences, and often the natural vegetation is a good indicator of the type of soil. Rhododendrons thrive on acid soils, for example, and beech on lime, but the majority of trees and shrubs are tolerant. Acid lovers are known as calcifuges, lime lovers as calcicoles; viburnum and lilacs are in this latter category.

The relative acidity and alkalinity of a soil is expressed on a pH scale 0-14; 0-7 is acid, above 7 alkaline. Most plants are happiest slightly on the acid side, rhododendrons thriving around pH 5. Soils may be made more acid by bracken or sedge peat, and June-cut bracken is richer in potash, which many calcifuge plants often lack.

Calcifuge plants in limey soil often suffer chlorosis, the sickly yellow colouring of the leaves being symptomatic of this condition. Chlorotic plants may be treated with sequestrene with some success, though planting in suitable soil at the outset is wiser.

It is worth noting that a calcareous (limey) subsoil may support an acid or neutral topsoil, the lime being leached out by rainfall.

Conifers are often erroneously recommended for dry, hungry soil. Most species prefer a deep, rich loam with a low lime content. On soils of high clay, gravel or lime content, Corsican pine is suitable. Lebanon cedar (cedrus libani) and European larch (larix europaea) will tolerate 10 per cent-plus lime content. On marshy ground, taxodium distichum and thuya occidentalis are beautiful.
Aeration, properly carried out, creates conditions which will produce a better sward and consequently a better playing surface. Proper aeration allows air to circulate more freely around the roots thus assisting respiration. In addition it also: * ENCOURAGES BACTERIAL ACTIVITY * PROMOTES A VIGOROUS ROOT GROWTH * IMPROVES SURFACE DRAINAGE * RELIEVES COMPACTION * AIDS ARTIFICIAL WATERING * ASSISTS FERTILISERS TO REACH THE ROOTS * ENABLES TOP DRESSING MATERIALS TO BECOME INTEGRATED WITH TOP SOIL.

Remember, however, it must be proper aeration. There are many aerating machines on the market but not all of them perform the function adequately. There must be maximum penetration combined with minimum surface disturbance. For FREE advice on the best machine for your area why not consult us — we are the acknowledged experts on all types of aerators, turf maintenance machinery and allied products.
Create illusion of depth.
- Contrasts in silhouette and autumn colour.
- Do not plant too close; the better nurserymen’s catalogues give spread as well as height.
- Near greens, upright forms are better; for example, prunus amonogawa.
- Do not mix conifers and deciduous trees, as the deciduous will grow faster and may overpower conifers.
- For main screens, sycamore, beech and ash are best, or Austrian, Scots and Maritime pines, if coniferous subjects preferred. The pines should be planted close and then thinned.
- The drive up to the clubhouse is the first thing that members and visitors see; a little extra care here is always worthwhile.

Planting and Transplanting. On arrival from the nursery, roots and root-balls should be thoroughly soaked if dry. If planting has to be delayed, stock should be heeled-in in trenches at an angle of about 30° to the ground, and covered to prevent breakage and drying out by the wind. Roots should also be covered with damp sacks when transporting to and at the planting site.

Evergreens continue to transpire, though to a much reduced degree, in winter. Ideally they should be planted with a ball of soil and protected against wind scorch by sacking or polythene shelters tacked to stakes around the plant. The best time to plant is before growth ceases in late September or in late April or early May, when it has recommenced. A drastic, though often successful, removal of foliage reduces transpiration and helps in the transplantation of larger subjects.

Deciduous subjects transplant more easily; the best time is as soon as the leaves have fallen in October or November, though planting can continue until early spring as long as the weather is open. Brooms and gorse are notoriously poor transplanters. Small pot-grown plants get away quickly as plants over 2ft. from the open ground rarely survive.

Thorough initial preparation of the soil renders aftercare virtually trouble-free, and especial attention should be paid to the removal of pernicious weeds like couch and bindweed. Deep digging or “bastard” trenching of ground amply repays the extra trouble.

Strong manures and fertilisers should only be used in exceptional circumstances, though leaf soil, spent hops, bone-meal and other mild organic fertilisers help the plant to get off to a good start. Ground should preferably be prepared a month or two in advance of planting to allow soil to settle.

Planting holes should be large enough to allow roots to spread comfortably; roots should never be doubled back to fit the hole. Stakes for support should be driven in the hole BEFORE planting, the stake will be in firm soil and cannot damage roots already planted.

Short stout stakes are better than long thin ones. Within reason the upper part of trees can sway in the wind, though in exposed places trees should be staked and tied right up to the top.

Semi-mature trees can be held firm by using three stout wires in wigwam fashion, threaded through hosepipe to prevent chafing the bole and fixed to stout pegs in the ground. If a double thickness of wire is used they can be tensioned by winding with a small wooden bar. Whippy shrubs such as broom and lonicera need staking, otherwise they will rock in the wind.

The collar or junction of root and stem should be at ground level; a stick placed across the hole is useful in determining the correct planting depth. Broken roots should be cut off cleanly before planting. NEVER plant too deep, as this can kill.

Good friable soil should be used initially around the roots, and by a shaking up and down of the plant the soil is brought into the intimate contact with the roots which is so essential.
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The Director,
Department of Agriculture and Fisheries,
P.O. Box 834,
Hamilton 5,
Bermuda.

to arrive not later than the 27th January, 1975.
to success. Firm well with the heel, fill in with the rest of the soil and heel well again. Treading-in can scarcely be too hard. Soil should be left about 2in. proud to allow for sinkage.

One can either use one of the excellent special ties on the market or make one’s own out of folded strips of hessian sacking, bound with rot-proof string. Ties should be examined periodically for tightness; they should not be so tight as to impair sap flow or cause chafing.

Ericaceous shrubs should never be planted in pockets of peat in unsuitable soil, as they will only be shadows of themselves in suitable soil.

Watering helps settle the soil and is necessary in drought, but care should be taken not to waterlog, as the small feeder roots may rot. Transpiration can be reduced by spraying the foliage, and this can be a decisive factor in the establishment of evergreens.

Acid lovers should not, of course, be watered with hard water. Moisture may be conserved by mulching with 3in. of well-rotted manure or straw, or even by covering the soil with old plastic fertiliser sacks, masked with a thin layer of soil. Trees should be watered first as there is no point in mulching dry soil. Ideally, mulching should be carried out in spring, particularly on cold, heavy land. Newly planted shrubs and trees should be kept weeded, and mulching helps keep weeds down.

Pruning. There are basically three reasons for pruning:
1. To beautify the appearance of the plant;
2. To improve the health of the plant;
3. To improve the quality and/or size of the flowers.

Dead, weakly or overcrowded shoots should always be removed, together with crossing branches where disease can enter at the point of rubbing. The centre should be kept open to allow light penetration. Successful pruning depends on cutting back to healthy wood.

Overcrowded shoots result in weak, unfruitful wood and should be shortened to an eye, bud or branch facing outwards. Lower branches should not be removed all at once, as sudden exposure of the bole may result in the bark being killed.

As a general rule shrubs that flower on current year’s wood should be pruned in February or March. Early flowering shrubs like forsythia are best pruned after flowering by cutting out old wood, and thereby allowing new wood to mature before winter.

A rotation system to encourage flowering can be followed:
1. Two-year wood: remove after flowering.
2. One-year wood that is fairly mature takes place of two-year wood.
3. Young shoots of good shape and position to follow one-year.

For weeping trees a lofty trunk is desirable for the best effect.

To prevent tearing or splitting, larger branches should be undercut by a quarter to a third, and if really heavy, taken down in pieces. Ideally work should be carried out in November. Cuts in branches over 1in. thick should be painted over with coal tar, bitumen or a specialist proprietary compound like Arbrex to prevent fungal disease and encourage callousing over.

Pruning of conifers is not recommended, though trees of some species can be reshaped by cutting branches right back to the main trunk. Hollies, yew, box and other similar evergreens are usually pruned in August, when growth is practically finished, or in early spring.

Hedges should always be cut wedge-shaped, so the bottom leaves can receive their share of sunlight. This of course only applies to the more formal hedge. Azalea, fuchsia and rose hedges can be pruned in the usual way.
Cavity work is rather specialised, but there is no reason why the ground staff cannot carry it out. Cavities are the result of broken branches or badly removed branches leaving snags, or lack of wound treatment. Prevention is better than cure.

All rotten material should be taken out right back to clean, healthy wood, leaving a smooth surface. Spray with Cuprinol or 20\% phenol solution, and paint with coal tar or Arbrex. Rough surfaces should be abhorred, as they hold fungal spores. Cavities that hold water can be drilled at the bottom to drain and then treated as ordinary cavities.

Cavities were often filled with brick or concrete, smoothed over and painted with tar dust just below the cambium layer, so the wound could heal over. A recent technique uses expanded polystyrene, which is light and allows movement of the timber.

Sources of trees and shrubs can be found in the specialist press.

Honey Bros. of Peamarsh carry an excellent range of tree-care equipment, and their catalogue is well worth having.

For further information the following books (a selected list only) may be consulted with confidence:

- Le Sueur, A. D. C.; The Care and Repair of Ornamental Trees.
- Royal Horticultural Society's Dictionary of Gardening.
- Hadfield; Trees and the English Landscape.
- Bean; Trees and Shrubs Hardy in the British Isles.
- Haworth-Booth; Effective Flowering Shrubs.
- Osborn; Shrubs and Trees for the Garden.
- Kingdon-Ward; Berried Teasure (winter colour).
- Chaudun; Ornamental Conifers.

Unfortunately not all are in print, but your local library will get them on the inter-loan schemes.

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