SOIL FOR GREENS

A reminder for Greenkeepers with constructional jobs on hand this Autumn

SOIL is not just so much dirt, but consists of solid, liquid and gaseous matter. It is half solid by volume with about 70 to 80 per cent minerals which is a mixture of sand, silt and clay particles. The other 20 to 30 per cent is organic matter or humus. The non-solid half, or the voids between the particles, is half water and half air. Stated another way, a cubic foot of soil should contain one half cubic foot of solid matter, one quarter cubic foot of water and one quarter cubic foot of air. Such a soil is well ventilated, and an ideal medium for the growth of grass, or any other crop.

The subsoil need not have organic matter, but it should be well ventilated to facilitate drainage, and speed the removal of surplus gravitational water. A system of tile drains should be installed in all greens having a subsoil which does not meet these specifications.

A putting green is more than a place to grow grass. The surface must have enough resilience to hold the ball of a pitched shot and yet be firm enough to have the billiard table trueness. Over-watering is one way to make a grass hold a pitched ball. The better way is to have a good soil structure. The surface will have sufficient resilience to hold the ball, irrespective of its moist content. Then it will not be necessary to resort to the bad practice of over-watering.

The presence of some organic matter in the surface soil is essential to make it slightly resilient and perform other functions connected with growth. It is the energy food for beneficial soil micro-organisms. As the organic matter undergoes decay by them carbonic acid is generated. It is the principal solvent in the soil solution and is responsible for the liberation of the mineral soil nutrients. Organic matter increases water-holding capacity and imparts other benefits of its colloidal nature.

(From an article by O. J. Noer.)