

## REPORT ON PEAT SAMPLES - SALTERSLEY COMMON

The four samples of peat were analysed by the ADAS laboratories for physical and chemical characteristics. The analyses carried out are those routinely used to assess the quality of peat and other growing media used for horticultural purposes. In addition, a visual examination of a peat is useful to identify the age and type of peat and to check for the presence of contamination by wood, weeds or other matter. The physical analysis carried out consisted of a particle size determination (by sieving) and, for one of the samples from the 'Top' layer, an analysis of the 'Air-filled Porosity', which is a measurement of the amount of air held in the substrate which is used to ascertain how well-structured it is and its drainage characteristics. A peat with a high percentage of very fine particles (less than 1 mm) will have a low Air-filled Porosity and will therefore hold a lot of water but little air. Such a peat can be used for short-term crops, e.g. seed raising, but would become waterlogged easily and would not be satisfactory for longer-term crops. An Air-filled Porosity of less than 10% is not satisfactory for most professional horticulturists, except for seed or blocking composts. For longer-term plants, particularly shrubs grown outdoors, the Air-filled Porosity should be nearer 15%.

In addition to the physical analysis all four samples of peat were analysed by the standard 'water extraction' technique for pH and available plant nutrients. This analysis will detect contamination of the peat by chemical contaminants, such as sodium chloride or other salts.

### Physical Characteristics

The two samples of peat from the 'Top' layer are both of well-decomposed peat with a high degree of humification. There appears to be some fine sand mixed in with the peat. The particle size is low, particularly in sample 'Top 1'. The Air-filled Porosity on this sample is only 5.5%, which would be acceptable for a seed-raising medium but is low for growing on of plants. The types of peat sold in amateur 'multi-purpose composts' are however, often similar to this as the quality of peat can be inferior to that demanded by professional growers. Some amateur growing media would have a small percentage of sand mixed in, particularly for seed composts, hence this would not preclude the use of this peat for that purpose.

The samples of peat from the 'Middle' and 'Bottom' of the bog are very different from the 'Top' samples and contain very humified, waterlogged peat with fragments of petrified wood. This peat would not be suitable for any horticultural purpose in its current state.

