

The Use of Wood Veneer in Decomposition Experiments

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ABSTRACT

Lignified cellulose (sycamore wood veneer) has been included in a range of simple biological soil tests that are being assessed as field tests to demonstrate the decomposing abilities of soils and the effect of management practices.

The tests measure the weight loss of individual nitrogen and cellulose substrates and also plant litter (*Eriophorum* leaves). The veneer pieces are 6×2 cm and the weight loss is the measure of decomposition.

All the experimental results are examined in relation to the growth of one or more test plants and to the chemical and physical characteristics of the soils.

The tests have been made in a range of 76 soils representing eight major soil types ranging from brown earths to peat, and were collected from sites throughout Britain. The soils were brought back to the research station for testing under common conditions and all tests were made in separate pots. The tests have also been made in a range of five soils pre-stored for 6 months at five moisture levels from 20% to more than 100% of field capacity.

The results for the veneer test from all experiments will be presented in relation to the chemical and physical characteristics of the soils and the potential of the soils for plant growth. The loss of veneer sometimes relates to the other soil tests.

The use of veneer allows an integrated assessment of the environmental conditions for decomposition over a longer period of time than for other tests and may be used in future field experiments.