

Nutrient Cycling: the key to reclamation success?

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The results of research into nutrient cycling on reclaimed land has enabled the control of nutrient input and species content during reclamation schemes to provide for faster nutrient cycling leading to improvements in ground cover, erosion control and appearance. However, the ecological value of abandoned mine lands where nutrient input is low and cycling very slow, is often greater than that of many reclamation schemes. Research has indicated that a 'capital' of nutrients is required in reclamation schemes for an ecosystem to be self sustaining, that intermittent inputs of nitrogen often lead to moribund vegetation with nutrients immobilised and that small but frequent pulses of nutrients as observed in legume supported swards or others where nutrient cycling is not obstructed can support effective reclamation schemes of some ecological value. These findings are considered in the context of the manipulation of nutrient cycling in order to enhance the ecological value of reclaimed sites.

ADDITIONAL KEY WORDS : ecological value, colliery spoil, china clay waste, metalliferous spoil, nitrogen, phosphorus, legumes.

