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HIGH ALTITUDE STUDIES

As part of the plant testing programme at Black Birch Experimental Station at 1375 m altitude, 'Grasslands 4702' and '4705' (see Lancashire, J. A., Lotus Newsletter 2:12, 1971) and commercial Lotus pedunculatus were screened for persistence in a severe mountain climate. The seed was sown in the glasshouse on 27 September 1971 and inoculated with strains NZP 2037 and CC 814S (See Pankhurst, C. E. 1970. N.Z. Journal of Science 13 (4): 519-531). On 16 November 1971, about 20 plants of each variety were planted at Black Birch and topdressed with about 1100 kg/ha triple superphosphate. On 14 March 1972 'Grasslands 4705' was at least twice the size of '4702' and the commercial diploid, which approximates the findings for winter growth of Barclay and Lambert (see Barclay, P. C.; Lambert, J. P. 1970. Proc XI Int. Grassl. Congr. 278-281). Plants with inoculum CC 814S (non-acid former) were greener and twice as big as those with NZP 2037 (acid former) which shows that non-acid formers are far more suitable on acid soils (see Norris 1965 in Pankhurst, l.c.)