

J. F. L. CHARLTON

Botany Department, The West of Scotland Agricultural College, Auchincruive,
Ayr, Scotland, Great Britain

The potential agricultural value of Lotus species in British agriculture

The project started in 1966 with glasshouse pot trials to obtain preliminary assessments of the competitive abilities of L. corniculatus when compared to British varieties of Trifolium repens. Cultivar trials were laid out in the form of spaced-plant and spaced-clump trials in 1968 and assessments of agronomic features were made during 1968 and 1969. Pilot trials indicated that Lotus would be more useful on marginal and hill-land so field trials were laid out to assess the capabilities of L. corniculatus under varying cultivation methods prior to surface-seeding, under different fertilizer regimes and with different companion grasses.

Lotus pedunculatus has shown considerable promise on moist, boggy hill-land and investigation of this species' potential has started by means of spaced aggregate-clump trials of world-wide ecotypes laid out simultaneously under lowland and upland conditions.

Quality comparisons of both Lotus species with Trifolium repens and T. pratense are also being undertaken by means of in-vitro digestibility analysis.

Future work will aim at the isolation of promising material for the eventual breeding of a cultivar suitable for use in British hill-land improvement.