PHOTOPERIODIC ecotypes have been reported for many plants including, for example, trees (10), range grasses (11), and legumes (1). Relatively little has been reported on the influence of daylength on birdsfoot trefoil, *Lotus corniculatus* L. (5, 8). The objectives of the studies reported in this article were: (1) to study differences in photoperiodic behavior of birdsfoot trefoil plants from several different latitudes and (2) to ascertain the critical daylength for flowering in birdsfoot trefoil and to relate this to natural plant distribution in the species.

PREVIOUS WORK

Work from Pretoria, South Africa, available after these studies were underway, indicated that birdsfoot trefoil (seed source or variety not stated) is a long-day plant. Photoperiods of at least 15 hours were required for normal but not extensive flowering and 16-hour or longer photoperiods were required for full flowering. A few plants bloomed at photoperiods of 14 hours but flowers were few and many buds were sterile (5).

In Colombia, South America, birdsfoot trefoil does not flower or produce seed, while white clover, red clover, alfalfa, and sweet clover do (2). Takahashi's report that trefoil blooms scantily in Hawaii and only in June. Crofts' in Australia reports that birdsfoot trefoil has been observed to flower and set seed at Berry (34° S.) but apparently does not do so at Kyogle (29° S.) or at Armidale (30° S.). In Kenya, Bogdan reports that trefoil grows fairly well during the rainy season at Kitale (6,200-foot elevation) but does not flower. However, a local plant, *Lotus corniculatus var. eremanthus* Chr. = (L. maernsii DeWild) flowers and produces seed as does an unidentified trefoil from Ethiopia. Joffe states that birdsfoot trefoil flowers to a very limited extent in certain years at Pretoria (26° S.). At this location birdsfoot trefoil is relatively prostrate in growth habit.

Taubert in Engler and Prantl’s “Die Naturlchen Pflanzenfamilien” lists 8 genera of *Loteae* and 144 species, all native to the north temperate zone. MacDonald (6) and Robinson (12) report birdsfoot trefoil widespread in Europe and Asia, ranging from the Mediterranean to 71° North and from western Europe into Siberia.

Specimens of *Lotus corniculatus* L. are on file in the New York Botanical Garden and at the Royal Botanic Gardens at Kew.

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1 Authorized for publication 13 March 1962 as paper No. 2644 in the journal series of the Pennsylvania Agricultural Station. Received Aug. 21, 1962.
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4 Letter 7 March 1962 from F. C. Crofts, Department of Agriculture, University of Sydney, Sydney, N.S.W., Australia.
5 Letter 8 March 1962 from A. V. Bogdan, Grassland Research Station, P. O. Box 450, Kitale, Kenya.