COVER

Mendel (1866) studied the inheritance of flowering behaviour but found the trait not amenable to clear analysis. It was not until 1915 that Hoshino identified a major flowering locus with some surety when he reported a gene for late flowering linked to a basic gene for anthocyanin production. White (1917) subsequently designated this locus Lf to avoid confusion over symbol duplication (Lf = Hoshino's A). Two further alleles, lf^a and Lf^d, were later identified by Murfet (1975). Reading left to right, the 49-day-old plants shown in the cover photograph are of Hobart lines 69 (lf^a), 59 (lf), 65 (Lf) and 89 (Lf^d). The plants commenced flowering at nodes 6, 9, 19 and 21, respectively. All lines are dwarf (le) and exhibit day neutral flowering behaviour (sn). Line 69 has a tendency to open two or more flowers on the one day, a characteristic of plants with allele lf^a. Line 59 is a selection from the early market cultivar Massey. Line 65 was selected to occupy the upper end of the flowering node range for Lf sn plants which more commonly commence flowering in the range of nodes 12-17. Day neutral lines generally do not produce secondary stems from basal nodes but late day neutral types do have a strong tendency to produce aerial laterals and this trait is clearly apparent in lines 65 and 89. Line 89 also shows two other traits characteristic of Lf^d sn plants, a reduction in internode length prior to the onset of flowering, and the hastening of flower bud development relative to leaf development so that the flowers open while still within the apical bud. References and further details are given in the review of pea flowering genes on pages 78-86.