Abstract:

A field experiment was conducted for two consecutive seasons (1993/94-94/95) to investigate the effect of shading, imposed at different stages of growth, on reproductive abscission of two faba bean (Vicia faba L.) cultivars namely BB-7 and Shambat 104. The canopy distribution of reproductive abscission was also investigated. The experiment consisted of four treatments: No shading (control), 50% shading during the vegetative stage, 50% shading during the reproductive stage and complete shading. The results showed that flower set per plant, flower abscission, pod set and pod abscission were significantly affected by the shade treatments in both seasons. However, the effect was more pronounced when shading was imposed during the reproductive stage of growth. The abscission/retention of flowers and pods were significantly affected by canopy position. The lower position consistently had a higher number of flower and pod set than the middle and upper positions. No significant differences due to cultivars and to the interactions were found in both seasons. Mechanisms of the effects of shading on reproductive abscission are discussed.