

Effects of sugar beet cultivar on development and reproductive capacity of *Aphis fabae*

Jabraeil RAZMJOU, Amin FALLAHI

Department of Plant Protection, Faculty of Agriculture, University of Mohaghegh Ardabili, Ardabil, Iran

Abstract

Black bean aphid, *Aphis fabae* Scopoli (Homoptera Aphididae) is recognized as a serious pest of sugar beet with worldwide distribution. Development and fecundity rates of this aphid were evaluated on six commonly growing cultivars under laboratory conditions in Ardabil County, Iran. The results obviously clarified significant differences in biology and life history characteristics of *A. fabae* reared on different sugar beet cultivars. The shortest developmental time for the immature stages was observed to be 11.32 days on 'Polyrave' and the longest 13.23 days on '7233'. There was the highest fecundity (14.33, nymphs/female) of *A. fabae* on 'Polyrave' and the lowest (7.32, nymphs/female) on '7233' cultivar. The r_m values of the aphid ranged from 0.1336 on '7233' to 0.2202 (nymphs/female/day) on 'Polyrave'. In general, Jackknife estimates of this aphid population parameters on cultivars examined showed the highest development and fecundity rates on 'Polyrave' and the lowest on '7233' cultivar.

Key words: *Aphis fabae*, developmental time, fecundity, sugar beet cultivar.

Authors' address: Jabraeil RAZMJOU (corresponding author, razmjou@uma.ac.ir), Amin FALLAHI, Department of Plant Protection, Faculty of Agriculture, University of Mohaghegh Ardabili, PO Box: 5619911367, Ardabil, Iran.

□

Received April 25, 2009. Accepted July 23, 2009.