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Resistance characteristics of different *Brassica* species to mustard aphid, *Lipaphis erysimi* Kalt. (Hom.: Aphididae)

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The mustard aphid, Lipaphis erysimi is one of the most severe pests of canola in Iran and other tropical regions in the world. Three species of Brassica including B. napus (cv. Licord, Elite, Okapi, Hyola 401, and RGS003), B. juncea (cv. Land race) and B. rapa (cv. Park land) were screened for antixenotic and antibiotic resistance to L. erysimi under greenhouse condition at 25±2℃, 60±5% r.h. and a photoperiod of 16:8 h. (L: D). The results of antixenosis test indicated that density of L. erysimi was significantly different on canola cultivars at different hour counting ($P < 0.05$ and $P < 0.01$ after 48 and 72 h, respectively). Aphid density on Elite, Okapi, and RGS003 cultivars was significantly higher than that on other cultivars. In antibiosis test, significant differences were detected among canola cultivars in aphid life-table parameters including intrinsic rate of increase (rm) ($P < 0.05$), net reproductive rate (Ro) ($P < 0.05$), mean generation time (T) ($P< 0.05$) and finite rate of increase (λ) ($P < 0.05$) with the exception of population doubling time (DT) ($P > 0.05$). The aphids had the highest rm on Land race cultivar (0.324 female/female/generation) and lowest on Elite (0.278 female/female/generation). Our results suggested the cultivars Elite, Okapi and RGS003 as the least susceptible host for L. erysimi. The resistant canola cultivars identified in the present study could be used for the management control of mustard aphid.

Keywords:*Canola, Lipaphis erysimi, Iran, Resistance*