

**Antixenotic resistance of fifteen Iranian rice cultivars to rice
weevil *Sitophilus oryzae* (Col.: Curculionidae)**

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ABSTRACT

Studies were conducted to investigate the antixenotic resistance of 15 Iranian rice cultivars to *Sitophilus oryzae* (L.) under laboratory conditions at $28 \pm 1^\circ\text{C}$, $70 \pm 5\%$ R.H. and 0:24 (L:D). The experiments were carried out under randomized complete block design in 2004. A mixture of 75 male/female of rice weevil was introduced in each of 4 replications for a period of 24h and 48h. In a free choice test, the orientation and colonization responses of the weevil were evaluated. There was not significant interaction between cultivar effects and time intervals, so a period of 24h was enough for adults settlement on their preferred cultivars. Twelve pairs of male and female weevils (1-8 days old) were released in each of 5 replications to estimate the oviposition response for choice test followed by egg-plug counts after 72h release. In both experiments, *S. oryzae* exhibited the lowest preference and oviposition on Kadus cultivar, therefore, Kadus could be considered as a potential resistant cultivar and to be investigated in further complementary experiments.

Key words: *Sitophilus oryzae*, antixenosis, rice cultivars, oviposition, host plant resistance

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Antixenotic resistance of fifteen Iranian rice cultivars to rice weevil *Sitophilus oryzae* ...

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