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ONLINE ISSN : 1881-4212

PRINT ISSN : 0915-499X

Bulletin of the Institute of Tropical Agriculture, Kyushu University

Vol. 28 (2005) , No. 2 pp.1-13

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Influence of Spraying and Adapted Fertilization on Reproductive Potential and Formation of Dispersing Morphs in Mustard Aphid, *Lipaphis erysimi* (Kalt)

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Abstract: 1. The study was carried out to find out the influence of adapted fertilization and insecticide application on reproductive potential and formation of dispersing morphs of mustard aphid, *Lipaphis erysimi* in mustard.

2. Two levels of nitrogen viz. 100, 120 kg/ha, and one level of potassium 60 kg/ha, with spraying of phosphamidon 100 EC (0.1%) at flower bud initiation, flowering, silique formation and development and silique maturity stages and no spraying were cross combined. One treatment with normal fertilizer dose accompanied by routine spray, and one with normal fertilizer dose without spray were considered to obtain 10 treatments and replicated three times in a RCBD.

3. The performance of aphids developing under different treatments was assessed in terms of formation of alate nymphs and alates, and reproductive features based on total and developed embryos and size of the largest embryo.

4. The study revealed that two sprayings, one at flowering and the other at silique formation, and development stages accompanied by K₂O(60) + N(100) or N(120) produced comparatively lower number of alate nymphs.

5. Rather than K, however, higher N reduced the formation of alates.

6. Variation in the number of total and well developed embryos, and in the size of the largest developed embryo was found during the crop season with a reduced value towards the end of the season.

Keywords: Mustard, Aphid, Alate, Alate, Embryo

To cite this article:

Z.U. Ahmmad, R. Kundu, M.Z. Alam and M.M. Hossain 2005 Influence of Spraying and Adapted Fertilization on Reproductive Potential and Formation of Dispersing Morphs in Mustard Aphid, *Lipaphis erysimi* (Kalt) . *Bull. Inst. Trop. Agr., Kyushu Univ.* **28**: 1-13 .

JOI JST.JSTAGE/bita/28.1

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