Assessment of Two Newly Introduced Parsley Varieties for Productivity and Quality as Affected by Iron and Magnesium Foliar Application under Upper Egypt Conditions

Ibrahim, O.H.M.; E.Y. Abdul-Hafeez and Wafa H. Abdalla

Abstract:

A field experiment was conducted to evaluate the performance of two parsley cultivars under the conditions of Assiut, Egypt. Response of both varieties to foliar application of iron and magnesium at four concentrations (0, 100, 200 and 400 ppm) was studied. Results showed considerable differences in the productivity of both cultivars where cv. Gewone Snij3-RIALTO (RIALTO) surpassed cv. Moskrul 2-KARUSA (KARUSA) in terms of fresh and dry weight, essential oil and leaf pigment content in both seasons. Foliar application of Fe and Mg separately or combined together at different concentrations revealed significant effect on growth parameters of both cultivars. The effect became more pronounced during the second and the third cuts. Increasing the concentration of either Fe or Mg resulted in significantly better results. The best interaction was found in cv. RIALTO plants sprayed with Fe at 400 ppm combined with Mg at 200 ppm, whereas cv. KARUSA plants produced the best results when the same concentration of Mg (200 ppm) was combined with Fe at 200 ppm. It could be concluded that productivity and quality of parsley depended significantly on cultivar, cut and foliar nutrition. Cv. RIALTO showed noticeable superiority over cv. KARUSA under Assiut field conditions.

Keywords:

variety evaluation, foliar fertilization, Pertoselinum crispum, Fe, Mg

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