Growth and Yield of Some Jew's Mallow (Corchorus olitorius L.) Ecotypes as Affected by Planting Dates and Foliar Application of Gibberellic and Humic Acids

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Abstract:

A Field experiment was conducted in 2015 and 2016 cropping seasons at the Vegetable Crops Research Station, Faculty of Agriculture, Assiut University, to study the response of three Jew's Mallow Ecotypes (Assiut, Eskandarany and Aswan) to planting dates and foliar application of Gibberellic acid (GA3) and Humic acids (HA) treatments. The Jew's Mallow ecotypes were planted on 15th Feb. and 15th Oct. in both cropping seasons and subjected to three foliar applications of 0.25mg.l-1 GA3 (T1), 0.5mg.l-1 HA (T2) and 0.5mg.l-1 HA + 0.25mg.l-1 GA3 (T3) and untreated plants were used as control. The results revealed that the Jew's Mallow ecotype 'Assiut' attained the highest plant (cm), number of leaves/plant, weight of leaves/plant (g), weight of plant (g), percentage net weight of leaves/plant and foliage yield (kg.plot-1) in both seasons. The early planting date (15 Feb.) extremely increased growth, yield components and yield parameters in 2015 and 2016. Foliar application of gibberellic acid (GA3) at 0.25mg.l-1 (T1) significantly increased growth and yield of Jew's Mallow plants. Spraying plants of the Jew's Mallow ecotype 'Assiut' with GA3 at 0.25 mg.l-1 at planting date 15th Feb. significantly increased growth, yield components and yield parameters in both seasons.

Keywords:

Jew's Mallow, GA3, Humic acid, planting dates, foliar spraying, Ecotypes.

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