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EFFECT OF DIFFERENT MEDIA ON SOME CHEMICAL COMPOUNDS OF MARIGOLD

(CALENDULA OFFICINALIS L.)

Sajedeh Aminoroaya1*, Davood Naderi2

Young Resaerchers Club, Khorasgan(Isfahan) Branch, Islamic Azad University, Isfahan, Iran1, Young Resaerchers Club, Khorasgan(Isfahan) Branch, Islamic Azad University, Isfahan, Iran2

*s.aminoroaya1988@yahoo.com

Abstract

One of the major factors for growing plants, especially ornamental pot plants bedding is appropriate media. Nowadays a lot of material with organic and inorganic origin are ,That can be added to the media and this material impress thegarden soil pH, Availability of mineral elements in plant, The amount of moisture in the garden soil, The pattern of root growth in media, Play an important role in the performance and production of secondary metabolites. One of the factors limiting the export of potted plants is the lack of standards in the media. Therefore, in this study, Effect of Different Media on Some Chemical Compounds of Marigold (Calendula Officinalis L.) was evaluated. Evaluation was performed during the 2012-2013 including field and laboratorial experiments. Field activitise was performed in Khorasgan (Isfahan) Branch, Islamic Azad University and laboratorial activitise in department of agriculture (horticulture) in Khorasgan (Isfahan) Branch, Islamic Azad University. garden soil + spent mashroom compost, garden soil, garden soil+ spent mashroom compost + rice bran, garden soil + spent mashroom compost + rice bran + manure, garden soil + rice bran , garden soil + rice bran + manure, garden soil+ spent mashroom compost + manure, garden soil + manure Were used as media. Experimental design was performed in complete random with 3 replications and 8 treatments. In Octobr 2012, After preparing the plots and mixing the ratios of different media, this media was put randomize in plots and then Put a seed in the pits created and seeds were covered with cocopeat. In April, the vegetative organs of the plant, including the flowers were dried in the shade. then Essential oils were identified by GC and GC MS cases. The following parameters were evaluated and recorded: Chemical composition of the flower. The major chemical constituents of marigold were Gamma.Cadinene (Delta.Cadinene (alpha.cadinene) Alpha.Muurolene (Gamma.Muurolene (Alpha.Copaene (Alpha.Cubebene) Beta.Cubebene (Phthalic.acid EpiBicyclosesquiphellandrene, Germacrene D · Alpha, Thujene, The highest Delta.Cadinene, Alpha.Muurolene, Alpha.Cubebene were in garden soil + rice bran. the highest Germacrene D, Phthalic.acid were in garden soil + spent mashroom compost.

Keywords: Marigold, spent mashroom compost, rice bran, manure

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