

Abstract



Influence of organic foliar fertilization on essential oil composition of marigolds (Calendula officinalis L.) cultivated in a field system

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Abstract:

Calendula officinalis L. (marigold) is a valuable medicinal plant, widely used in traditional and modern medicine, perfumery, the food industry, cosmetics and landscaping. In order to study the effect of organic foliar fertilization on essential oil (EO) content and composition, a field experiment was conducted. Treatments including four different organic foliar fertilizers: Fylo® (F1), GeolinoPlants&Flowers® (F2), Cropmax® (F3), Fitokondi® (F4) and control were set up in a factorial experiment based on split plot design with three replications. On average, in the period between 2015-2016, in the production of fresh inflorescences of Calendula officinalis L., there were percentage increases in foliar fertilized variants ranging from 18% to 29% compared to the control.In order to ensure maximum productivity, it is advisable to harvest 2-3 days in high temperature periods, reaching 4-5 days depending on climatic conditions. The staggering and the dynamics of production highlight in 2015 a maximum of production that was obtained between August 15 and 31, and in 2016, during July 1-15. The changes were also pronounced in secondary metabolism, so the amount of phenols, flavonoids, and antioxidant activity, increased the amount of oil in some treatments to the control.

Biography:

Vasilica Onofrei Onofrei is working as a Professor in Ion Ionescu de la Brad University of Agricultural Sciences and Veterinary Medicine of Iasi • Department of Plant Science



Recent Publications:

- 1. VasilicaOnofrei, et al; Ecological foliar fertilization effects on essential oil composition of sweet basil (Ocimum basilicum L.) cultivated in a field system; 2018
- 2. VasilicaOnofrei, et al; Organic foliar fertilization increases polyphenol content of Calendula officinalis L; 2017
- 3. VasilicaOnofrei, et al; of organic foliar fertilization on antioxidant activity and content of polyphenols in Ocimum basilicum L.; 2017
- 4. VasilicaOnofrei, et al; Yield, Physiological and Biochemical Parameters of Cynara Scolymus L. under Foliar Ecological Fertilization; 2016
- 5. VasilicaOnofrei, et al; The effect of ecological foliar fertilising on the yield of Ocimum basilicum L.; 2016;

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